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BACKGROUND

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The ASMD was developed based primarily on the following:

- The results of 2002-2003 biological investigations (pre-fire);
- MSCP conditions of coverage for SVOSP species;
- An anticipated need for recreational access;
- The detectable effects of the Cedar Fire and state of the art information on anticipated long-term effects; and
- The underlying concept of adaptive management.

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Baseline Biological Investigation Methodology

Vegetation Mapping (2002)

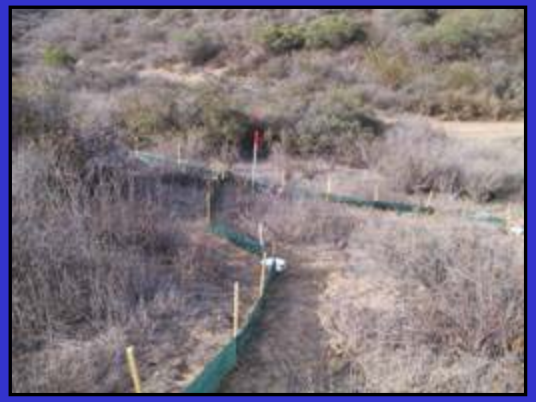
Herpetological Arrays

- Pit Fall Trapping (2002-2003)
- Funnel Trapping (2002-2003)
- Ant Pit Fall Trapping (2002)

Small Mammal Trapping (2002)

Point Counts (2002-2003)

Track Plating (2002-2003)



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Baseline Biological Investigation Results:

- Predominantly climax chaparral, sage scrub, and oak woodlands, with areas of interspersed grasslands;
- A fairly monotypic avian community, characteristic of regional sage scrub and chaparral habitats;
- A moderately rich herpetological community throughout most of SVOSP, with at least one area of higher diversity;
- Higher small mammal diversity and abundance in sage scrub vs. chaparral; and
- Larger mammal presence typical of the region and habitats.

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Significant additional information obtained in 2003 (pre-fire) biological investigations included:

- Presence of Western Spadefoot within SVOSP;
- Evidence of more widespread Coast Horned Lizard presence; and
- Greater avian diversity detected.

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MSCP species:

Slender-pod Jewelflower

Lakeside Ceanothus/Lilac

San Diego Goldenstar

Orange-throated Whiptail

Coast Horned Lizard

Northern Harrier

Golden Eagle*

Western Bluebird

Southern California Rufous-crowned Sparrow

Mule Deer

Quino Checkerspot Butterfly

(Generally require measures to protect against detrimental edge effects)

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Recreational Access =

Additional Monitoring +

Additional Maintenance

- safety
- biological value
- rewarding recreation

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Detectable or predictable short-term effects of the Fire:

- Vegetative loss throughout SVOSP;
- Increased erosion within the vicinity of existing drainages and areas of human disturbance;
- Direct mortality for non-burrowing small and medium sized mammals;
- Loss of habitat for almost all faunal species;
- Decreased food availability through spring for surviving individuals;
- Increased predation pressure; and
- Resprouting throughout SVOSP by chaparral and sage scrub species, oaks, and eucalyptus.

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Anticipated long-term effects of the Cedar Fire:

•Reduced biological abundance during the vegetation recovery period;

•Recovery of chaparral and sage scrub habitats, including sensitive floral species, and recovery of the majority of the oaks;

•Recovery of passerine residents may be slow due to combined effects or pre-fire drought, fire, and potential effects of West Nile disease;

•Increased use of SVOSP by larger mammals and raptors will hinge upon the recovery of their prey base (smaller mammals, birds, and reptiles); and

•Some potential for increased non-native flora presence.

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Monitoring Recommendations:

•Habitat/vegetation monitoring to detect any increases in non-native floral species presence or habitat conversion and meet MSCP requirements;

•Post-fire prey base monitoring (small mammal, herp, avian);

•Trail and access road conditions monitoring

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Management Recommendations:
Exclude off-road activities and patrol SVOSP on a regular and frequent basis;
Reduce the Eucalyptus Woodland on-site;
Provide protection for areas of higher herpetological diversity;
Based on the results of monitoring, take recommended steps to remove exotics, restore disturbed areas, reduce edge effects, and control or direct on-site activities;
Avoid increased fire frequency to avoid habitat conversion or conditions that favor invasion by non-natives;
Provide for educational opportunities where feasible to benefit the public and SVOSP.

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The underlying concept of **adaptive management** strongly supports the use of monitoring to dictate and/or modify management actions.

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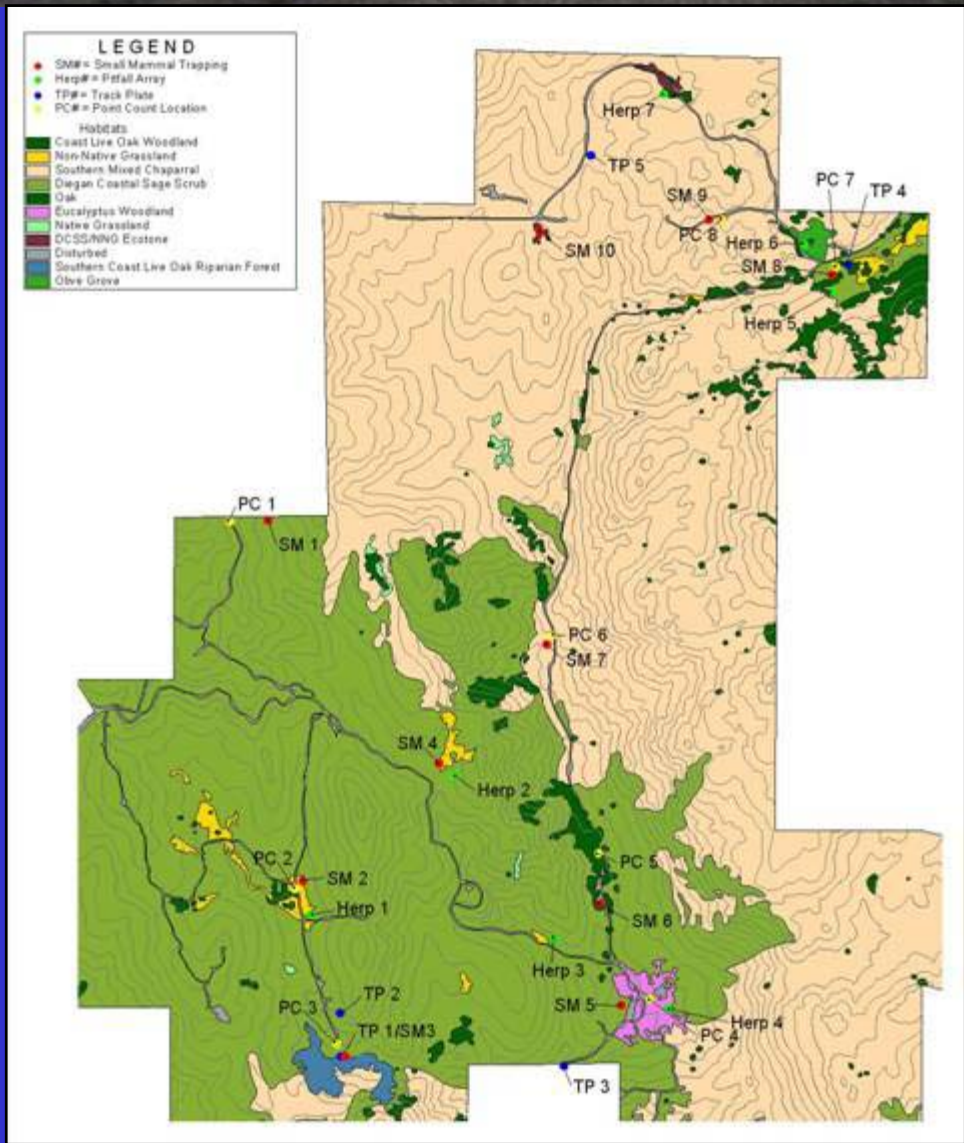
Vegetation Mapping

Updated the MSCP Regional Vegetation based on aerial photography interpretation methods.

Primary goal was to capture small enclaves of grassland and woodland communities that were not mapped previously.



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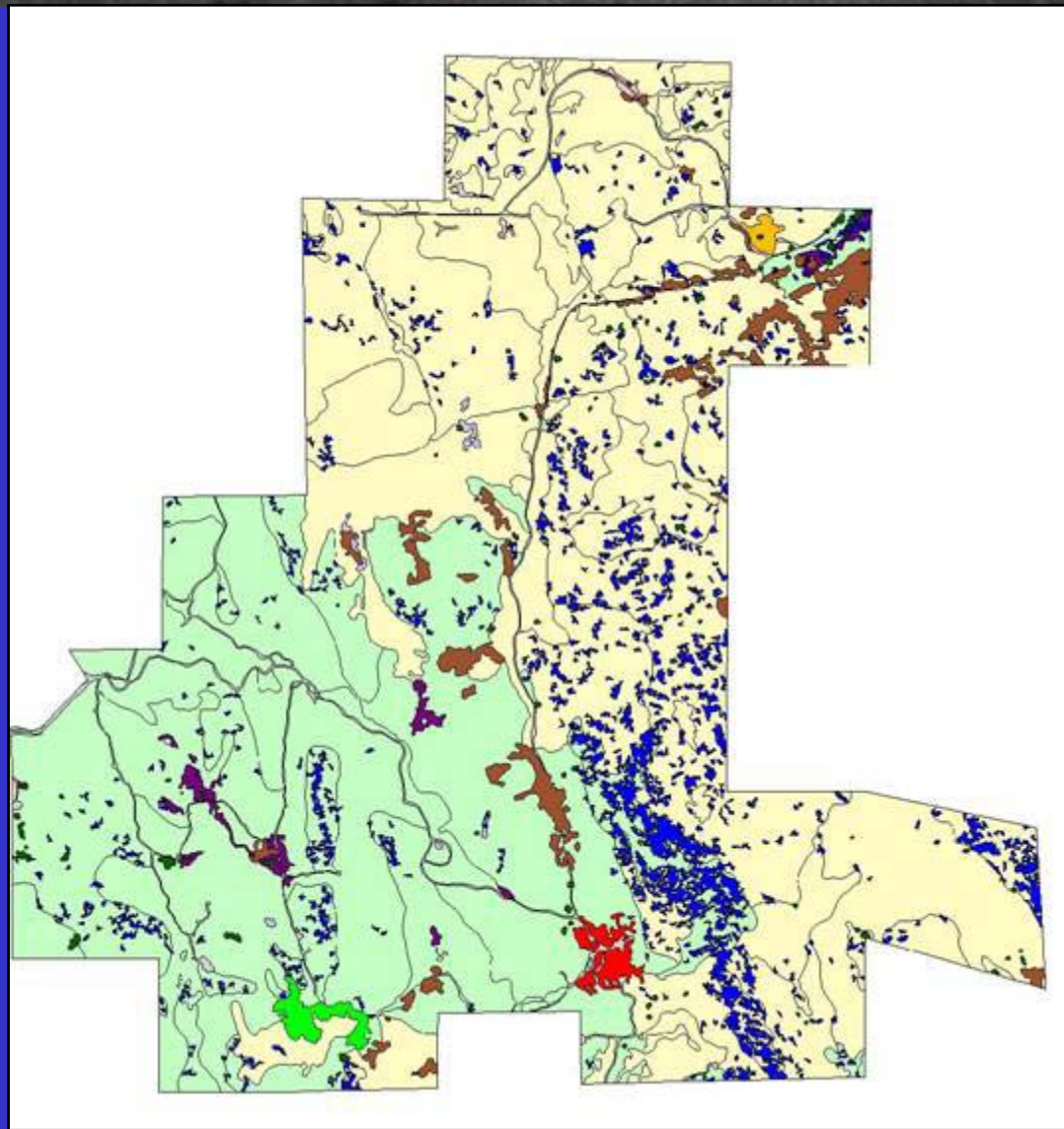
Fire Fuels

Spectral classification methods were utilized to identify and extract areas of significant rock outcrops from the surrounding vegetation communities.



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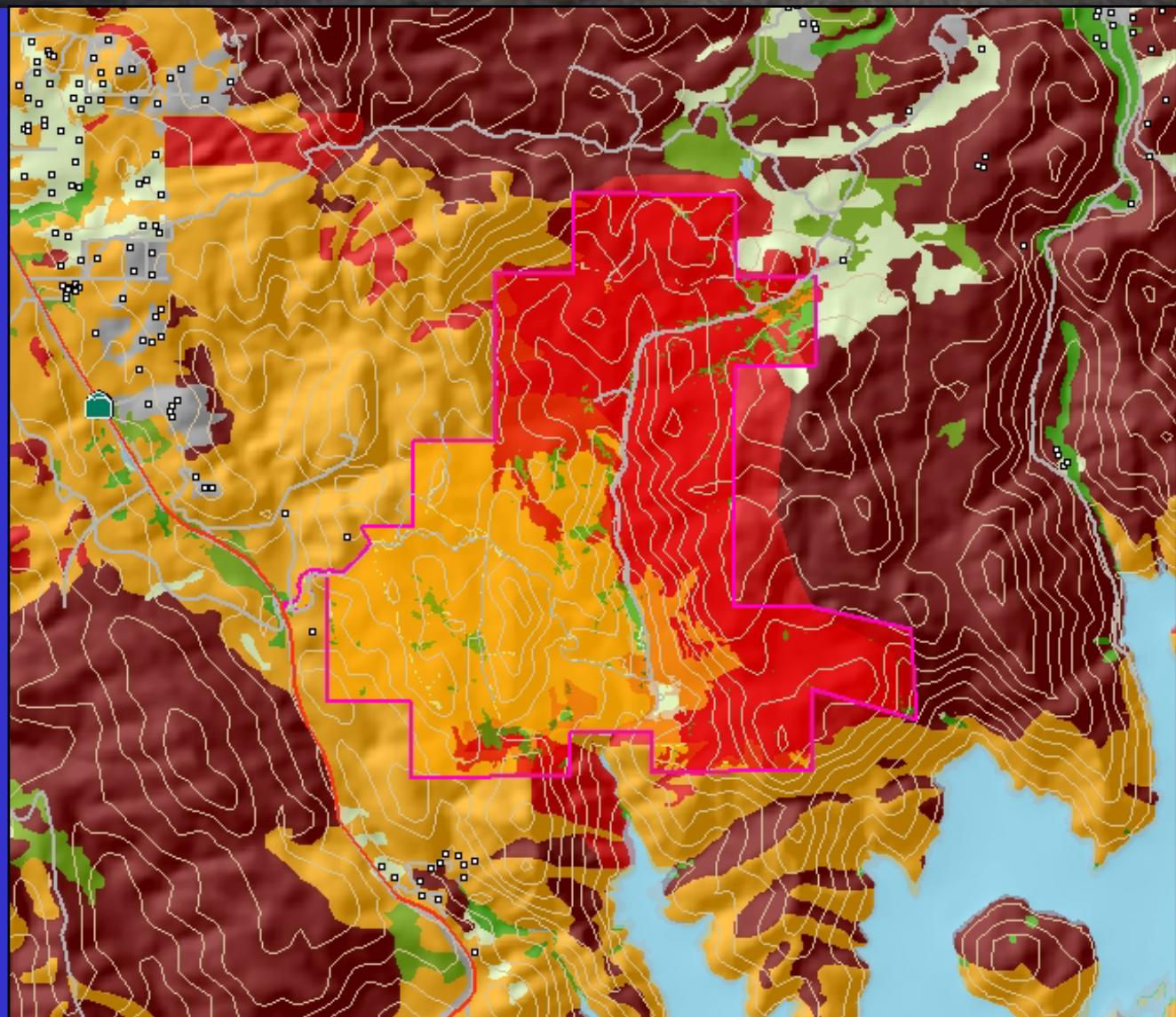
Fire Fuels

The fuel mapping within SVOSP was then integrated into the regional data to create a continuous fuels layers for fire modeling.



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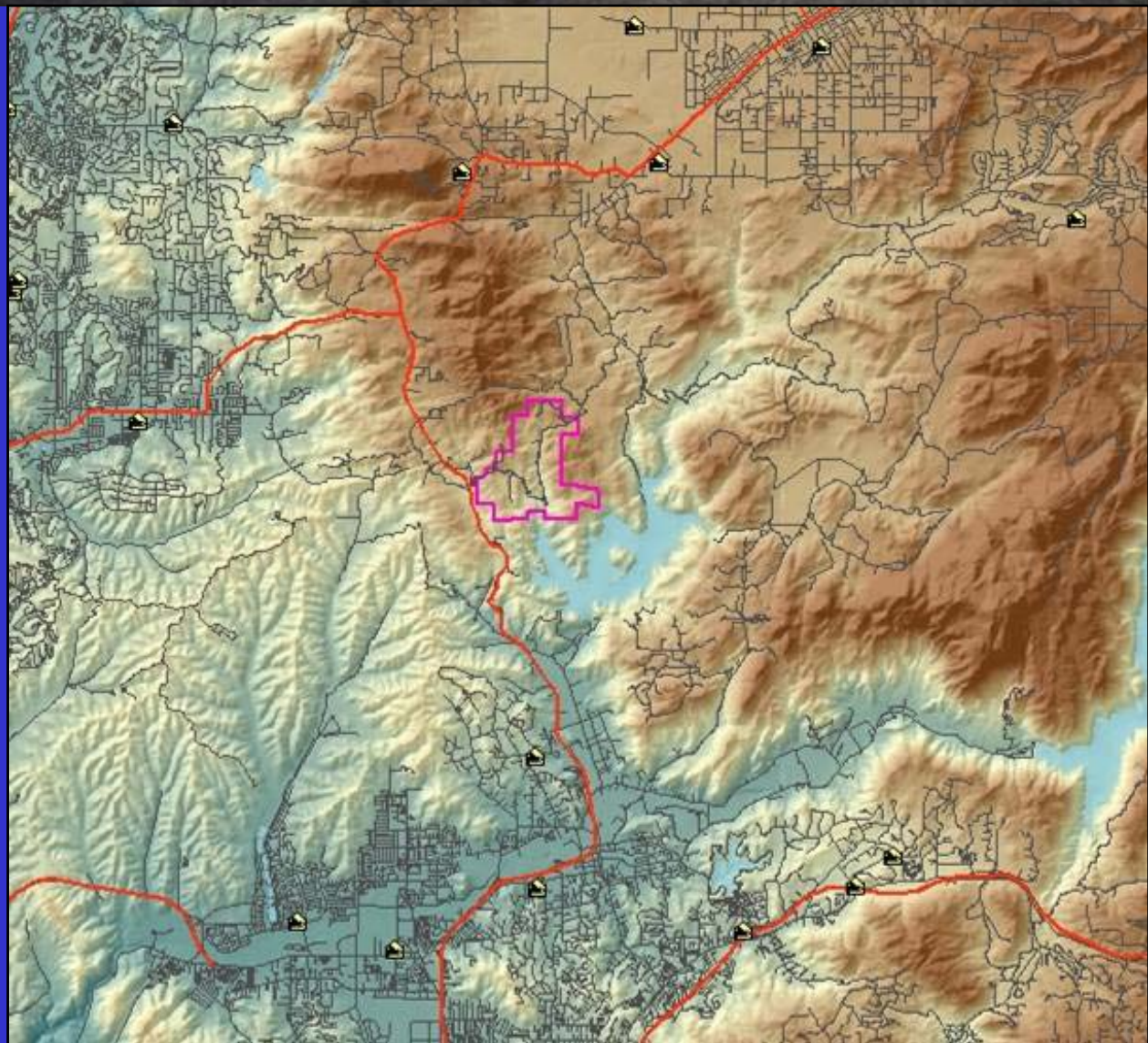
Regional Context

As with fauna, fire has no regard for property lines, making it critical to understand the regional context.

The SVOSP is situated in the middle of one of the largest continuous blocks of native vegetation that connects to rural east to the urban west.



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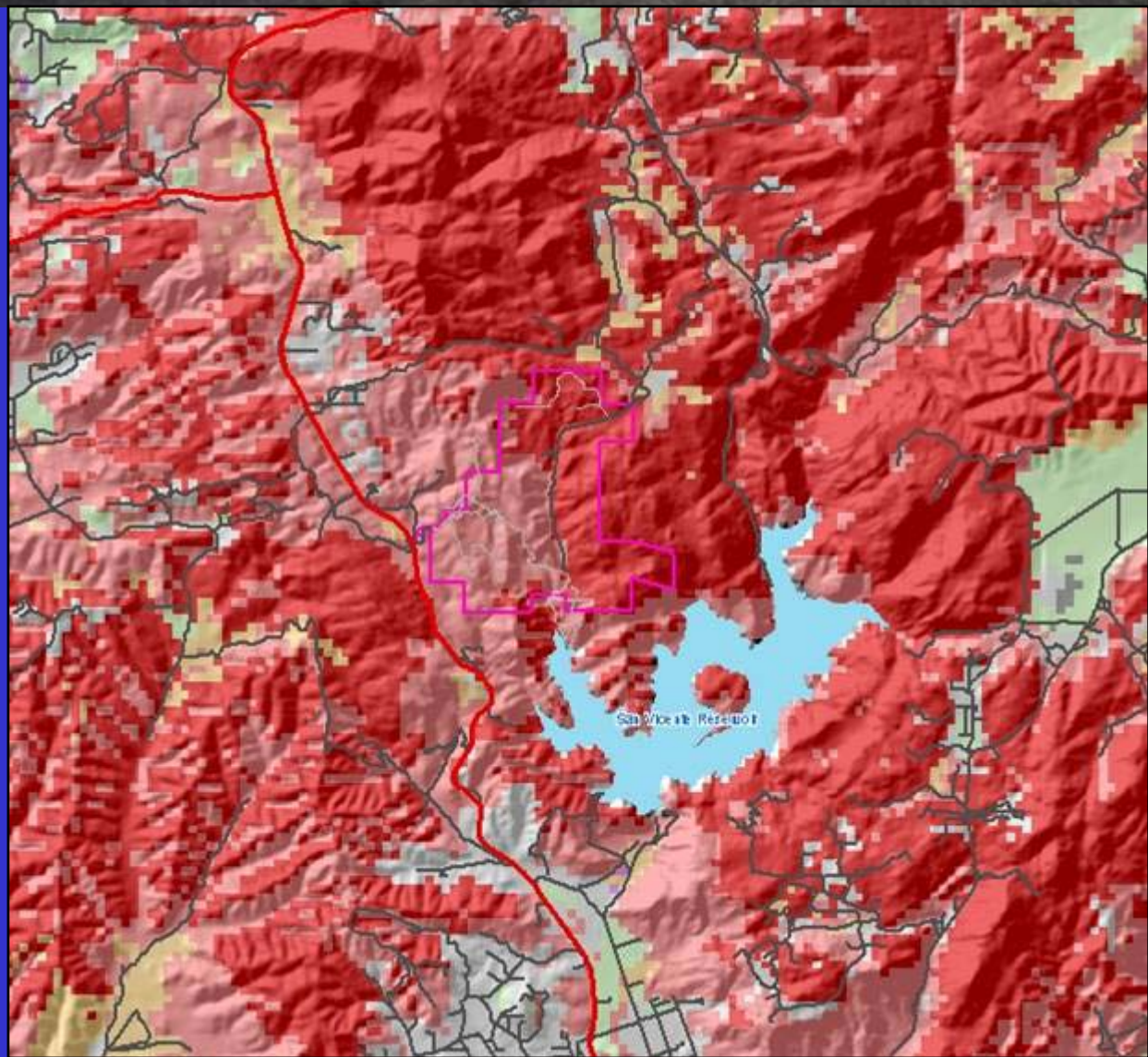
FRAP Fire Regime / Severity

CDF has conducted a variety of state-wide analyses to help guide fire planning and response activities.

Most of the fire regimes in the region assume stand replacing fire every 35-100 years.



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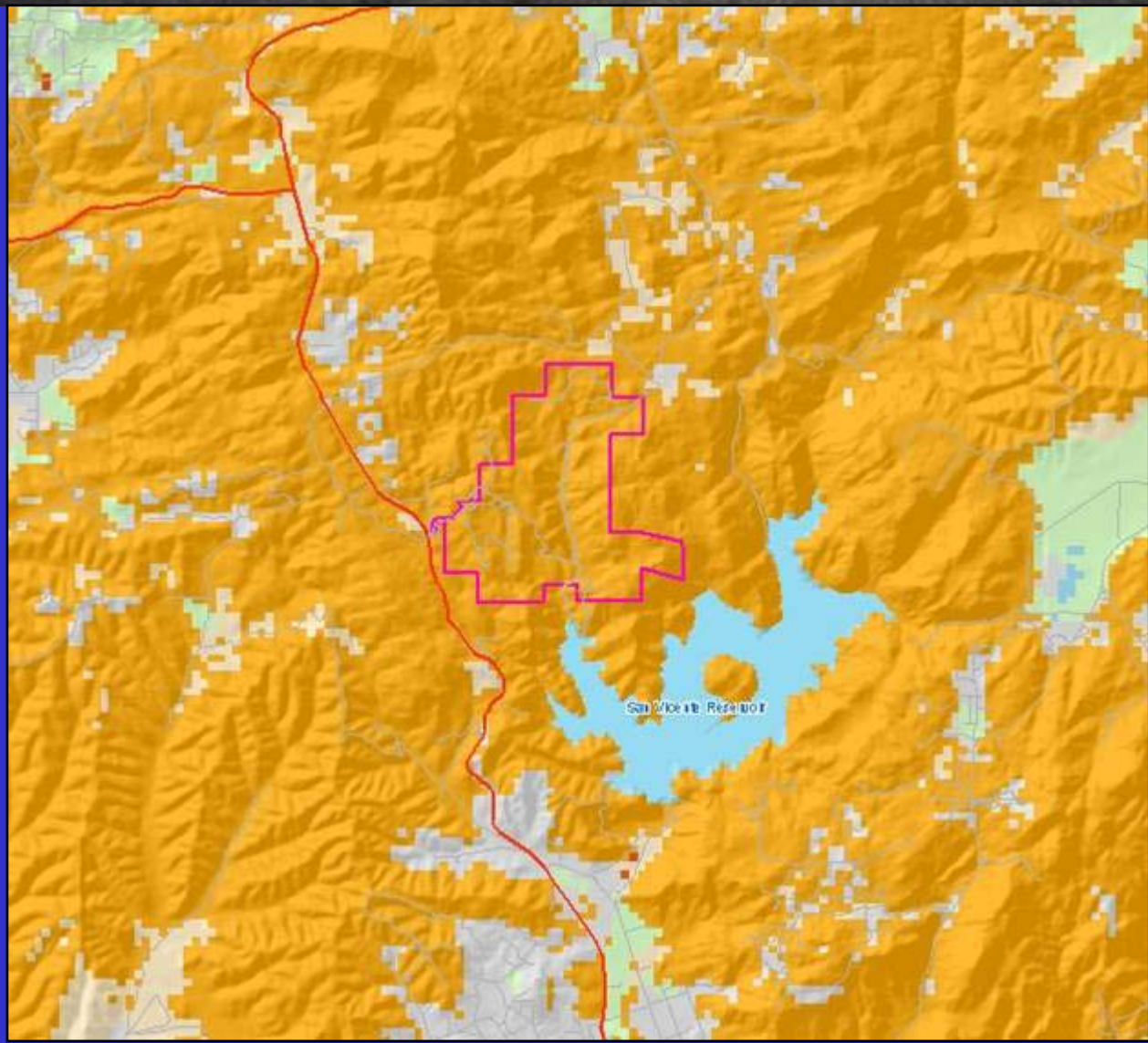
FRAP Fire Regime

CDF has identified five regimes, three of which occur within the region.

The SVOSP is comprised wholly of Regime Class 2, which is representative of southern California scrublands.



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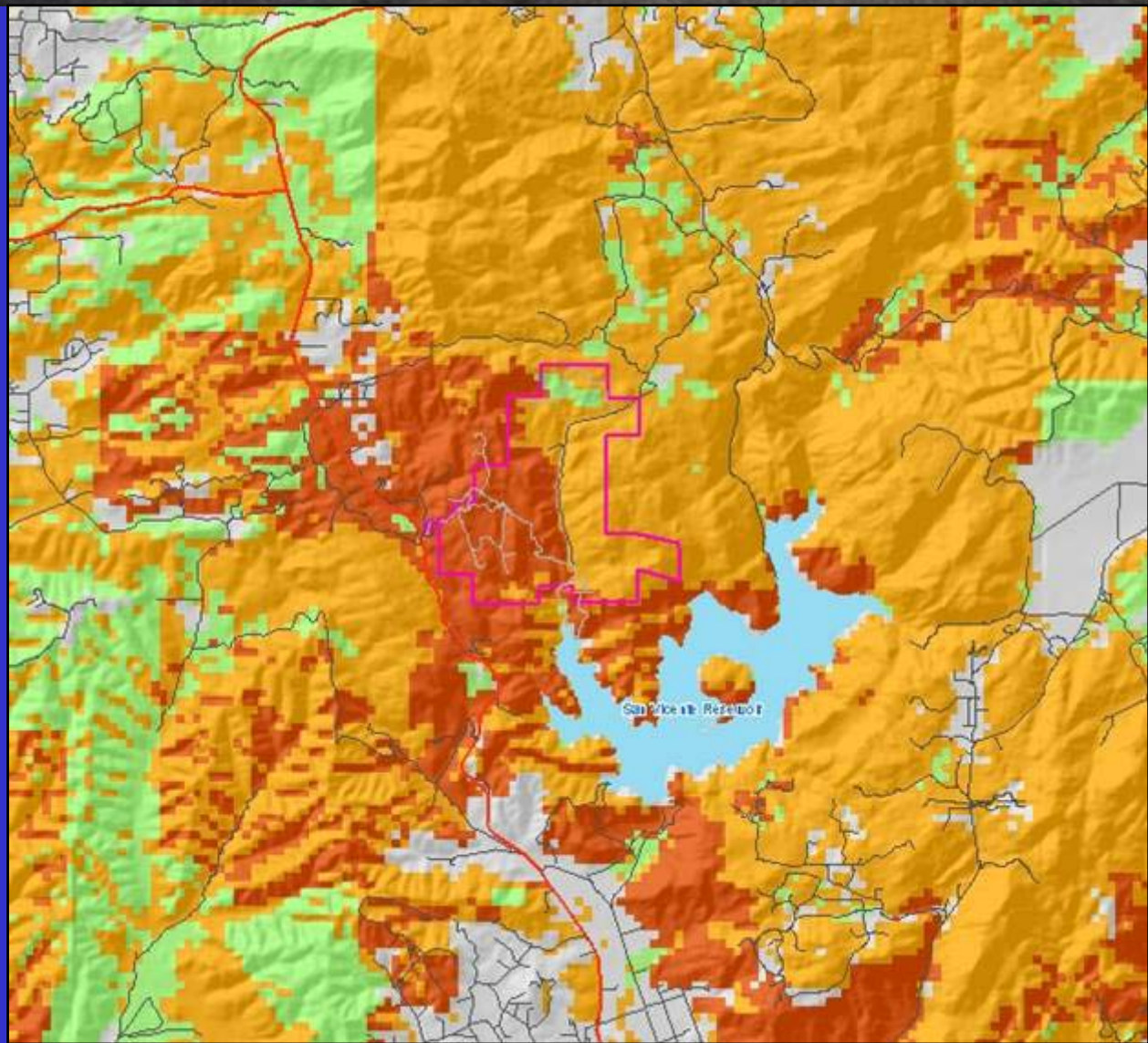
FRAP Condition Class

The Condition Class represents the potential vegetative response to a fire. The Coastal Sage community is likely to have the most adverse response to fires, where as Chaparral, Grassland, and Oaks are more adapted and respond better to fire events.



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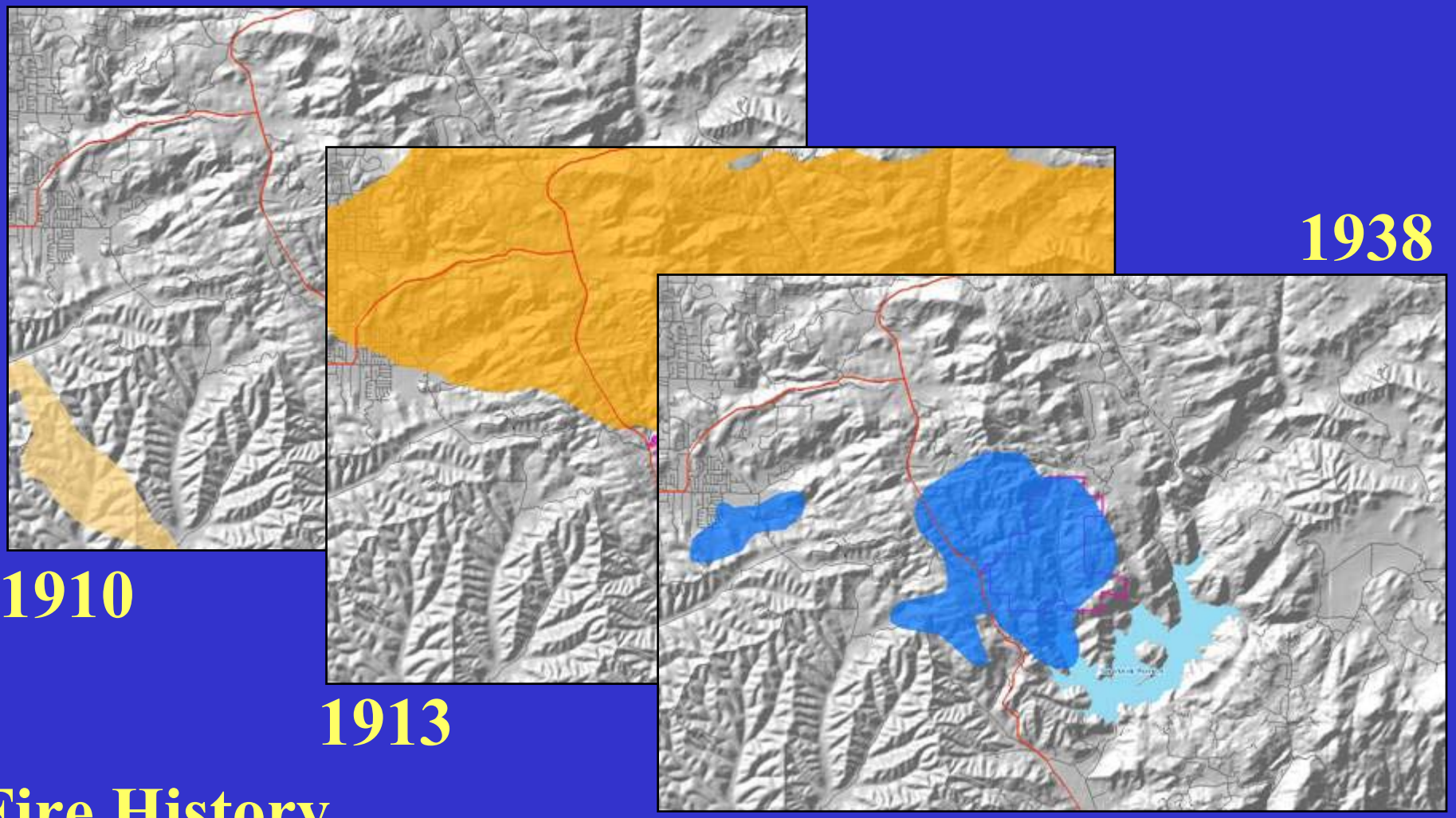

Fire History

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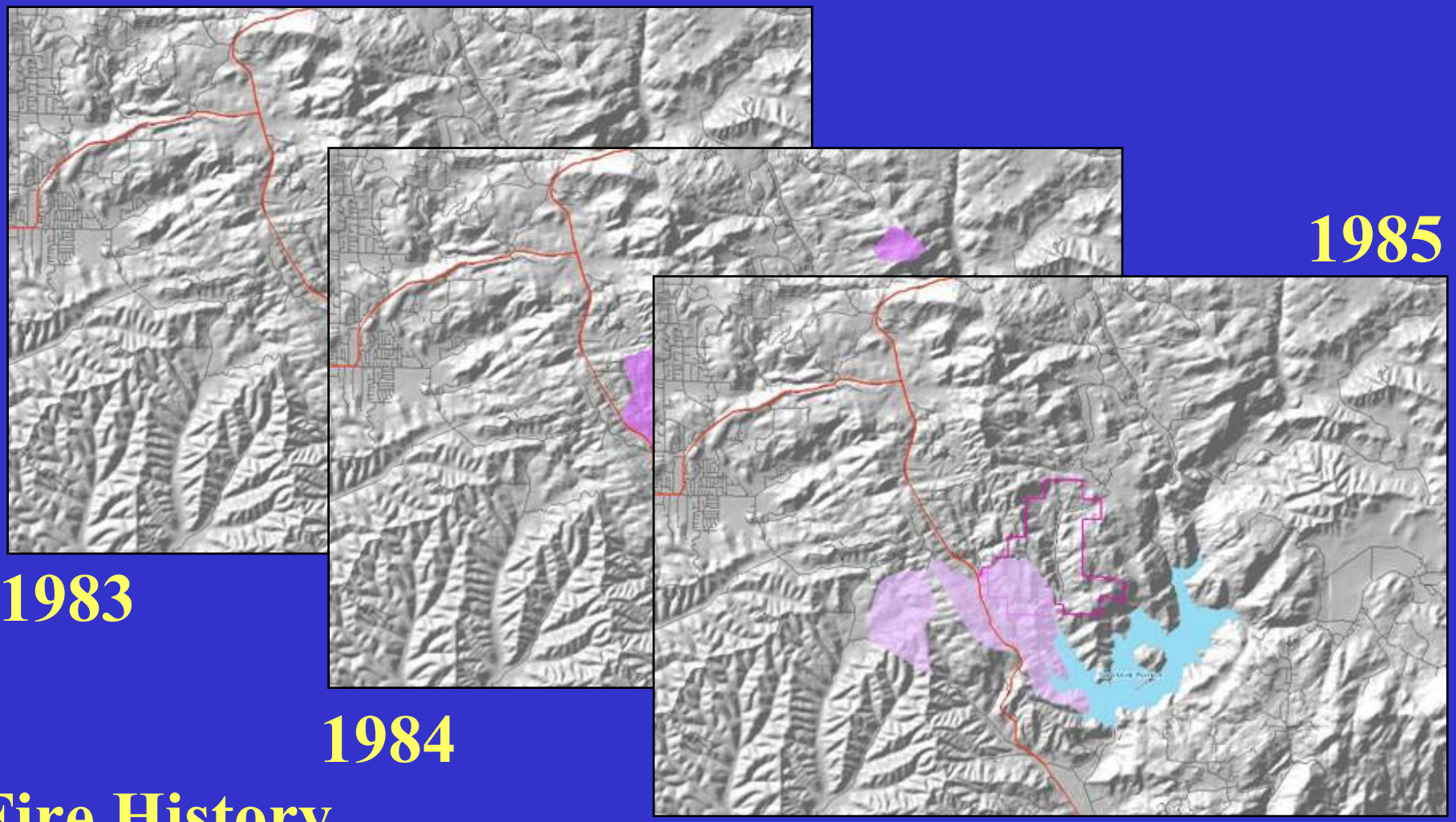

Fire History

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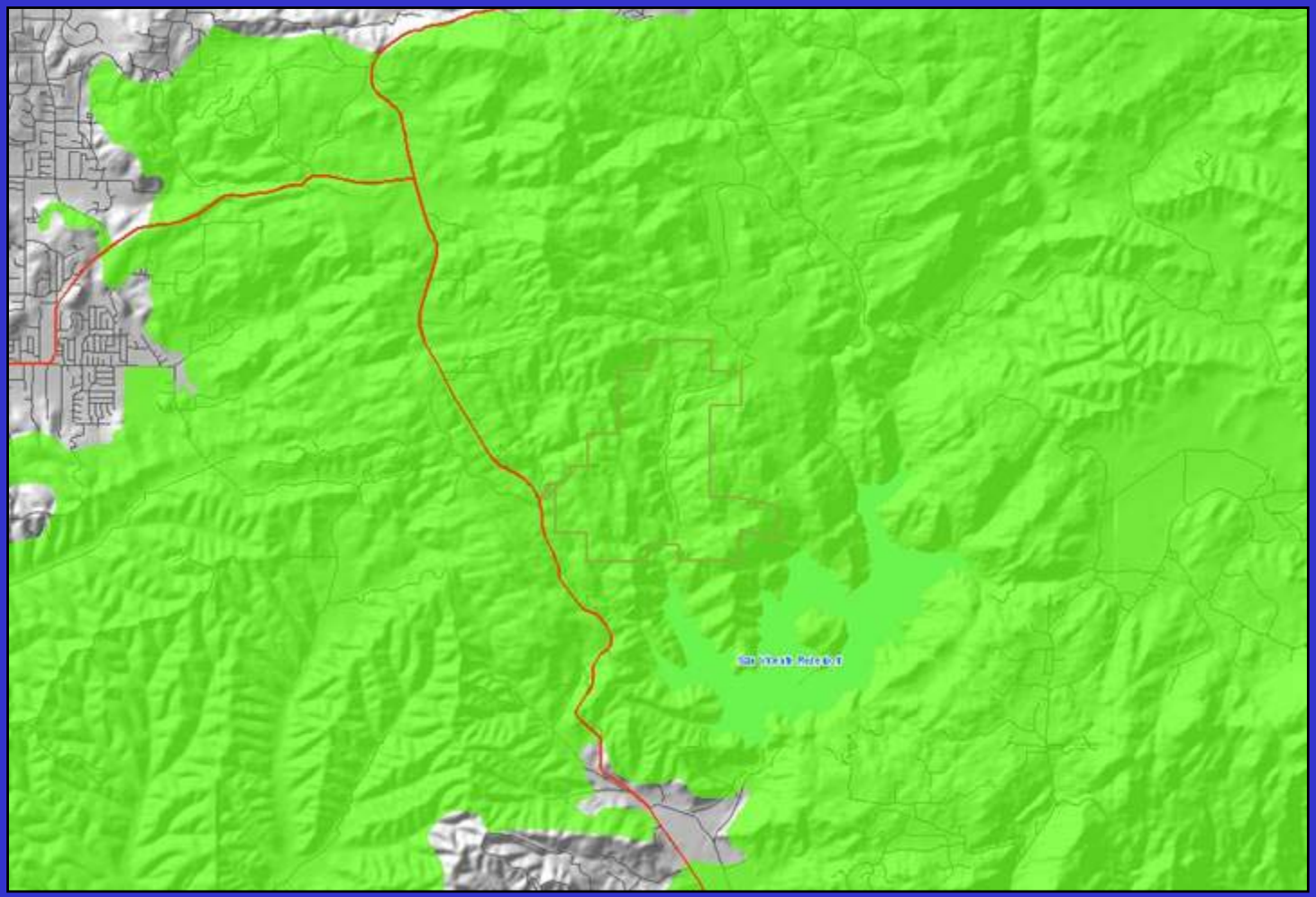
Fire History

2003



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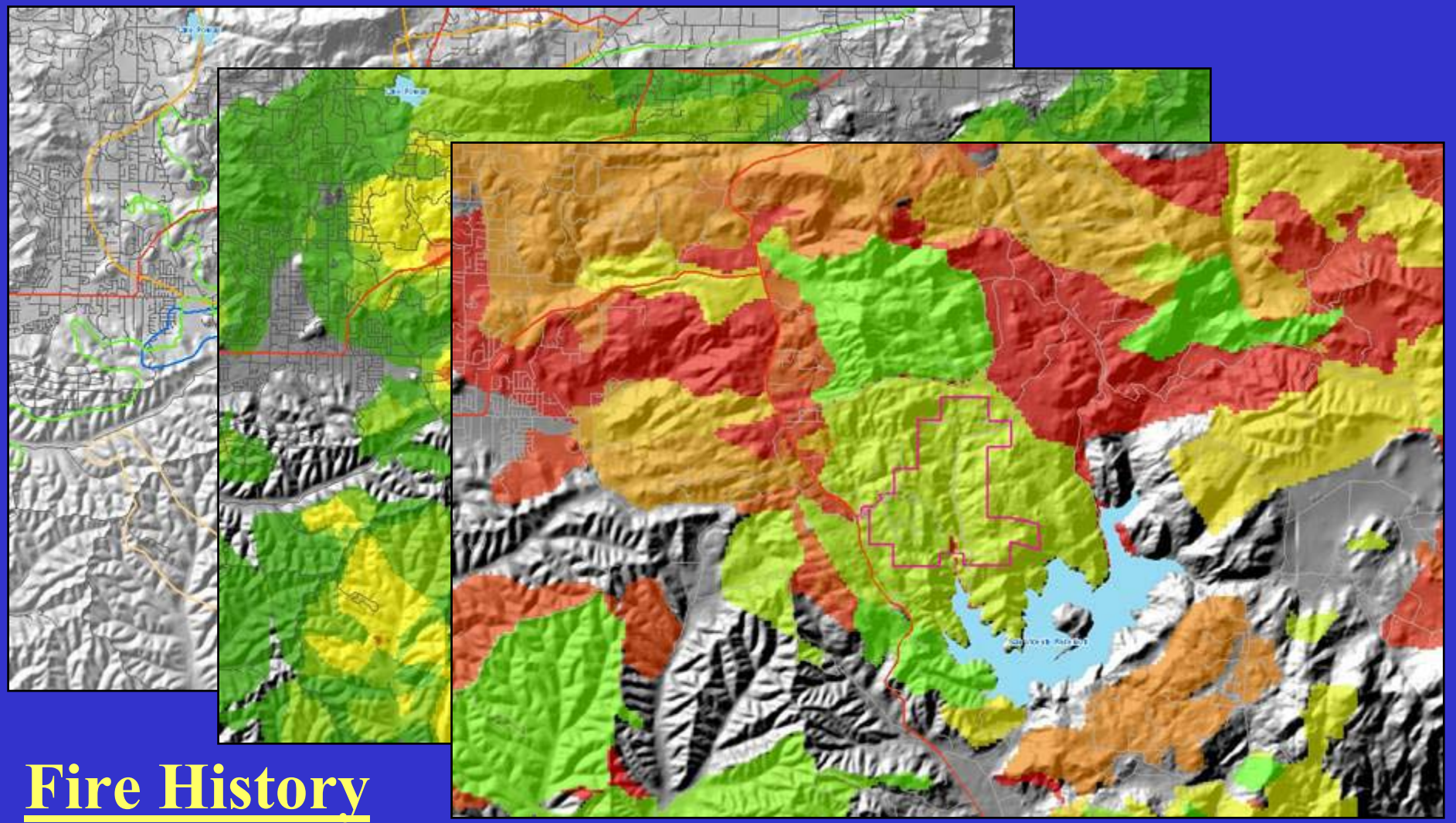

Fire History

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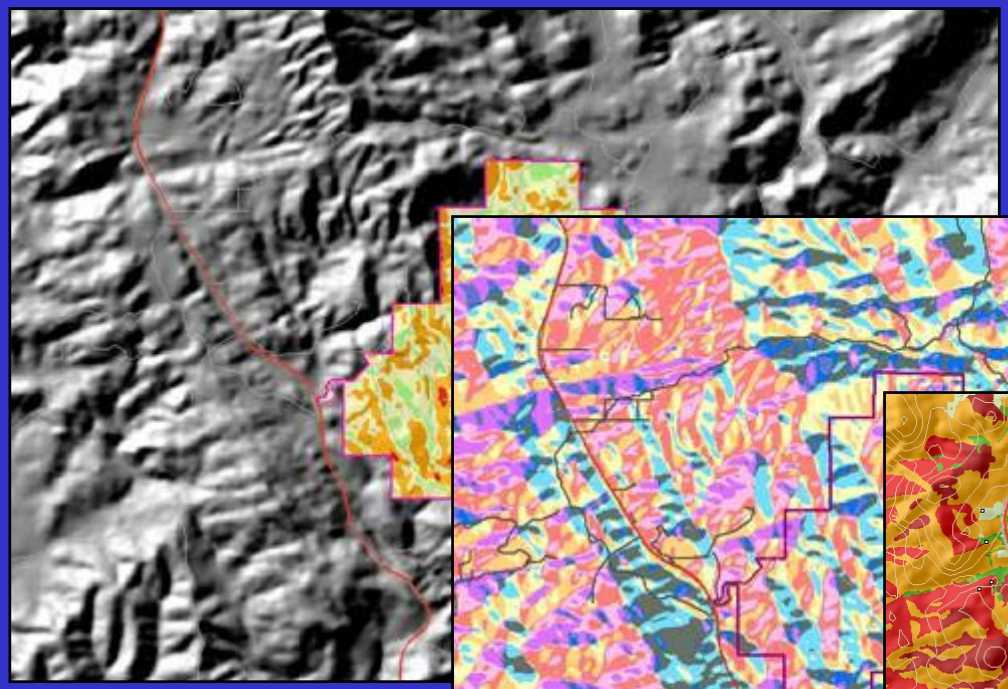
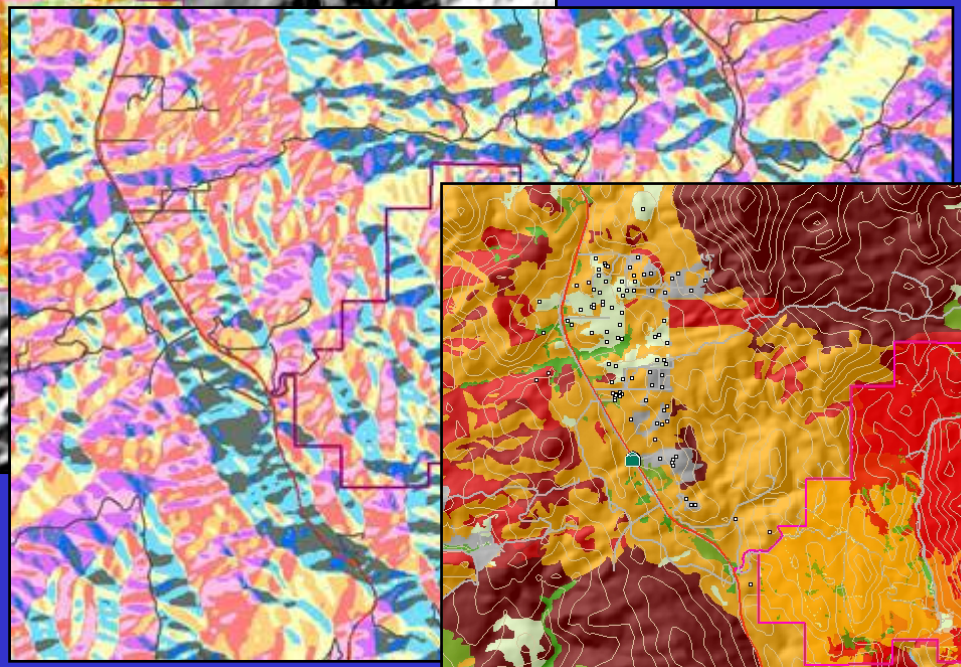
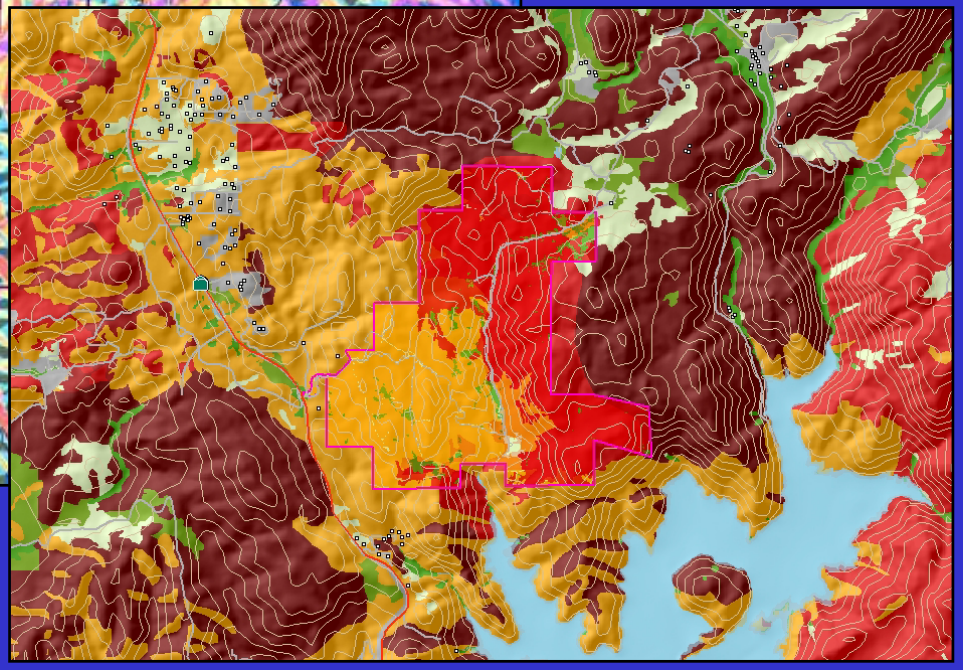


Slope



Aspect



Fuels

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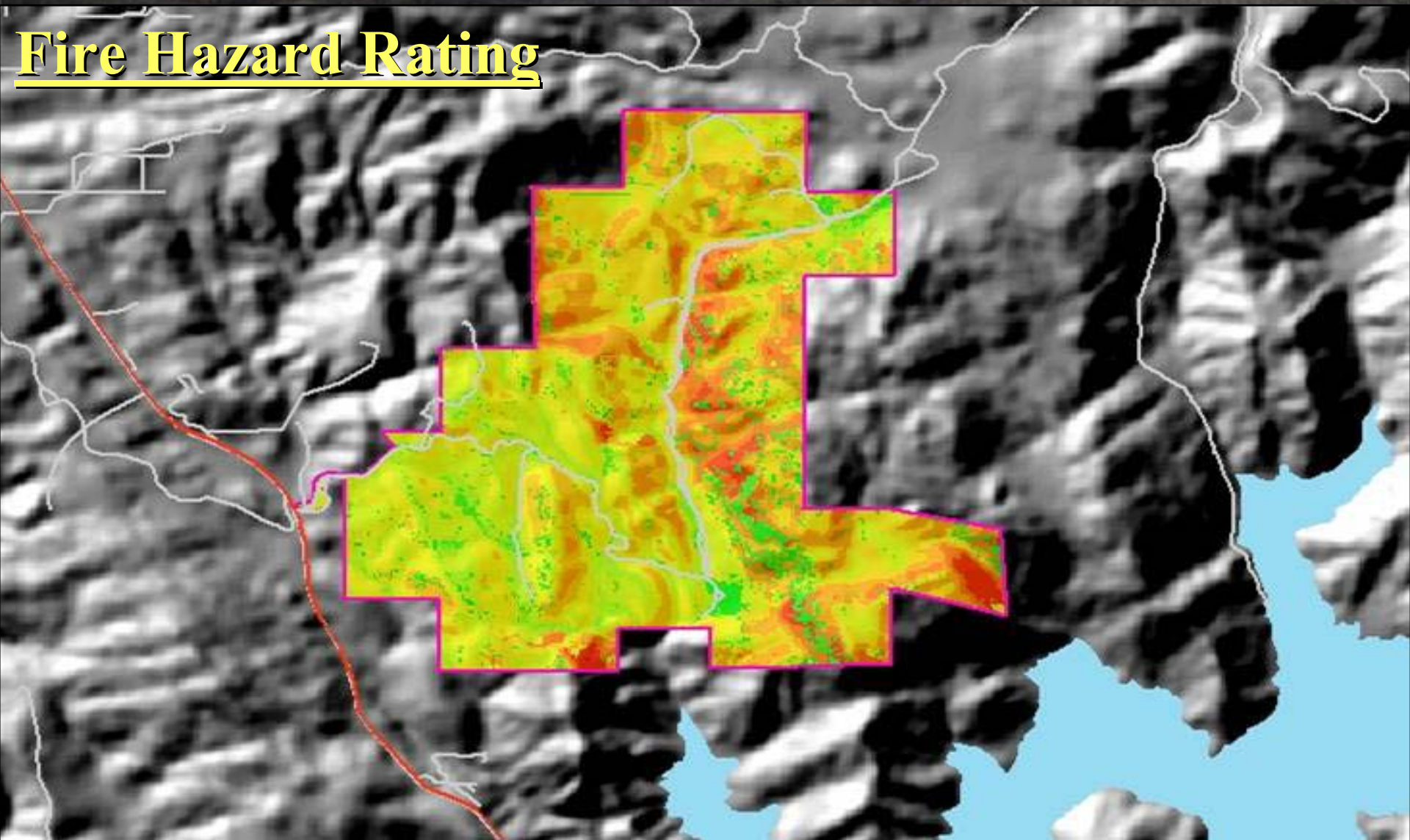
Fire Hazard Rating



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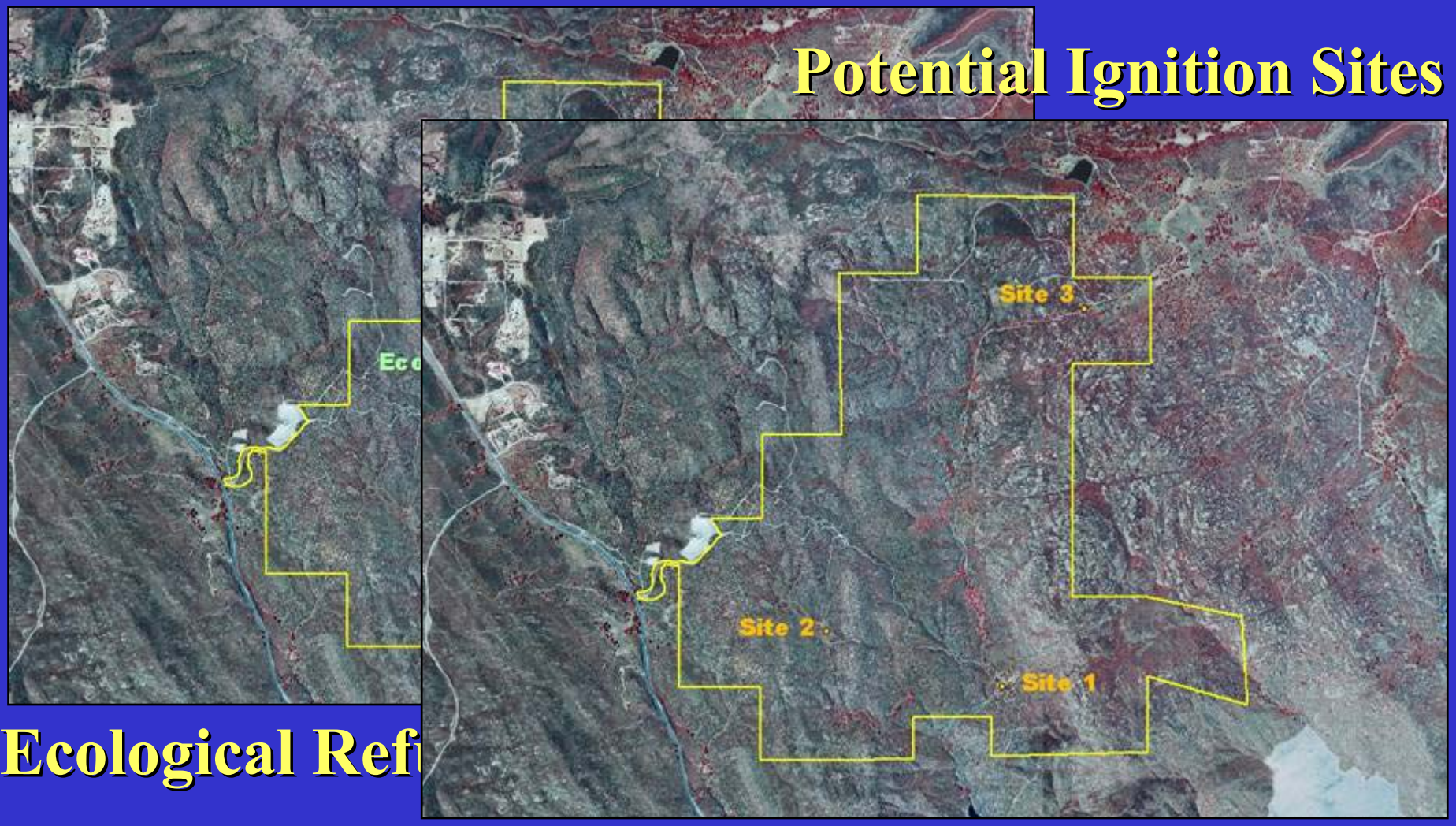

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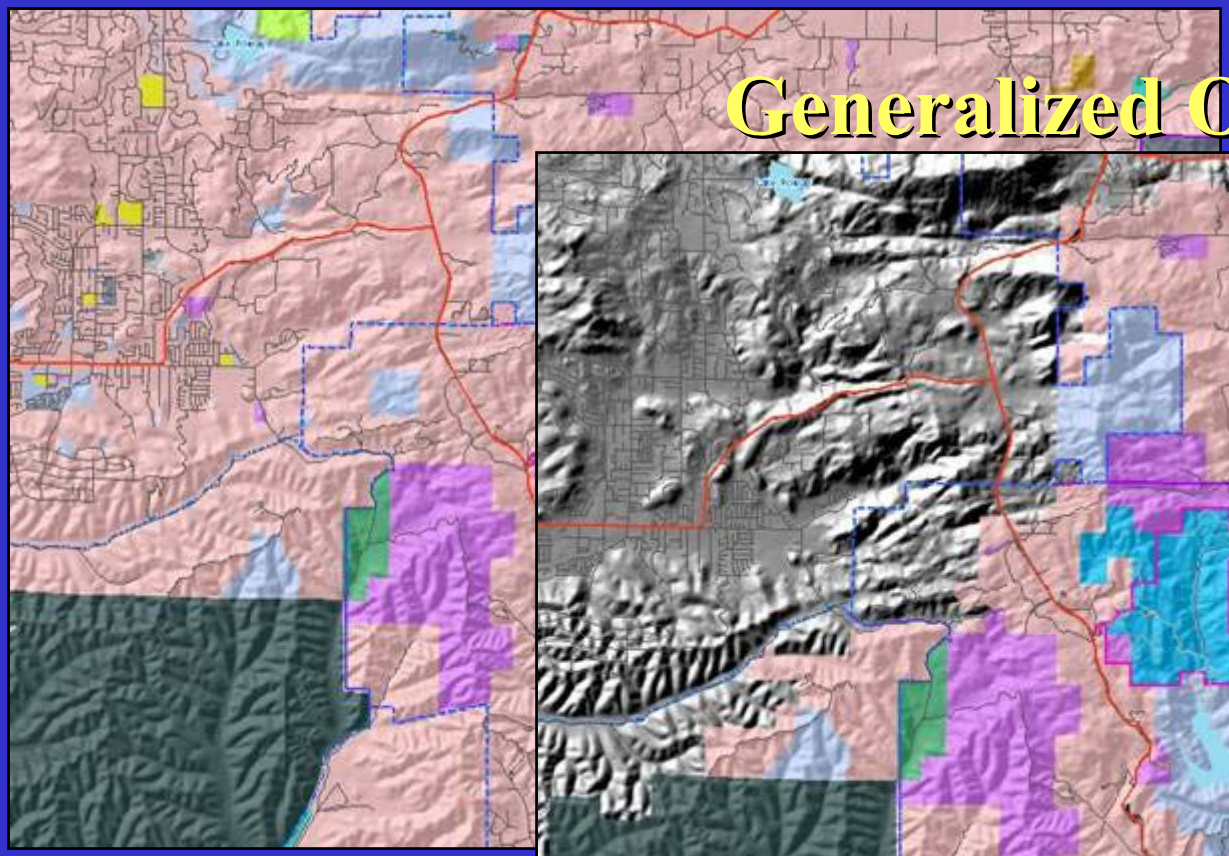
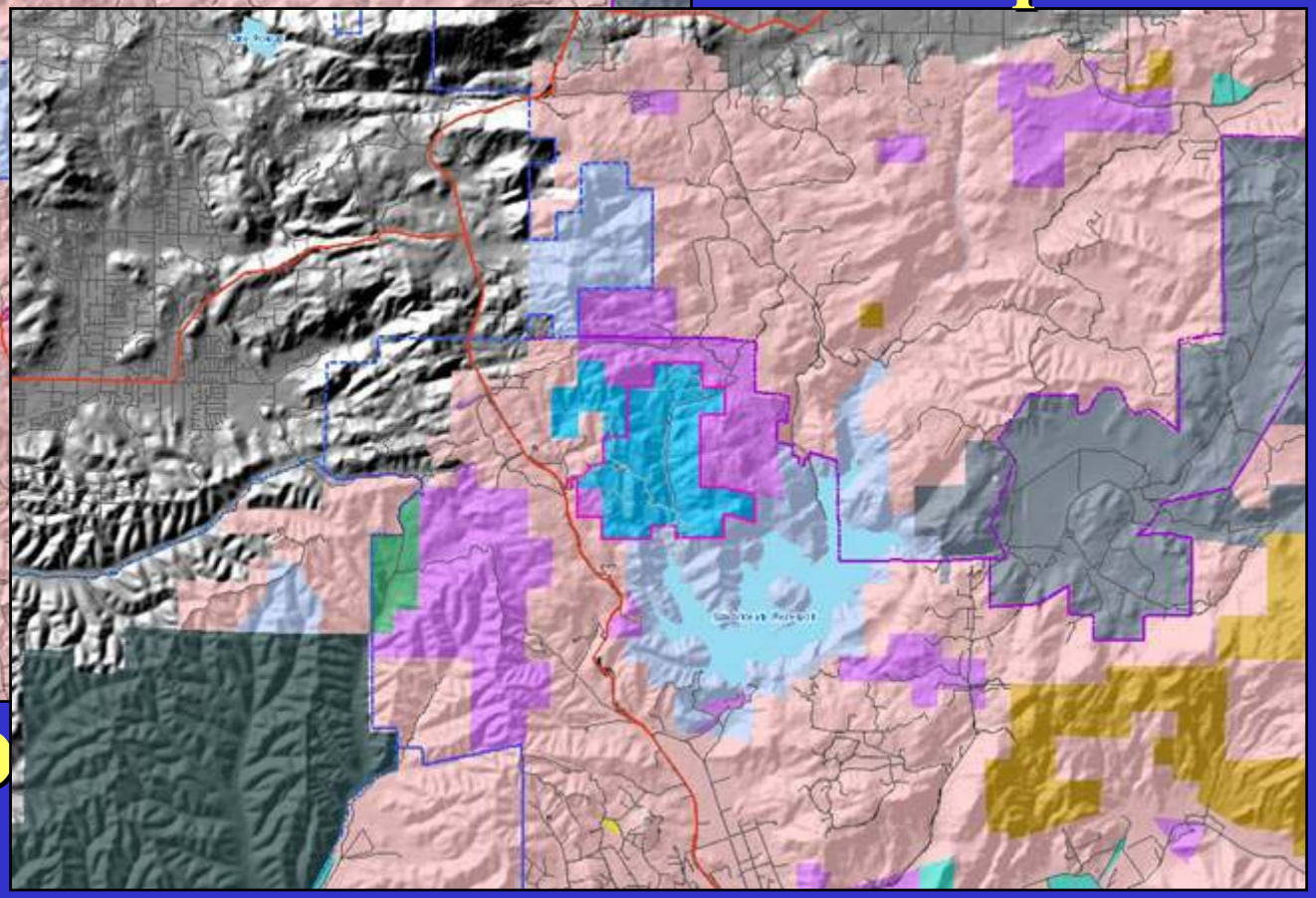


Generalized O

Generalized Ownership - 2003



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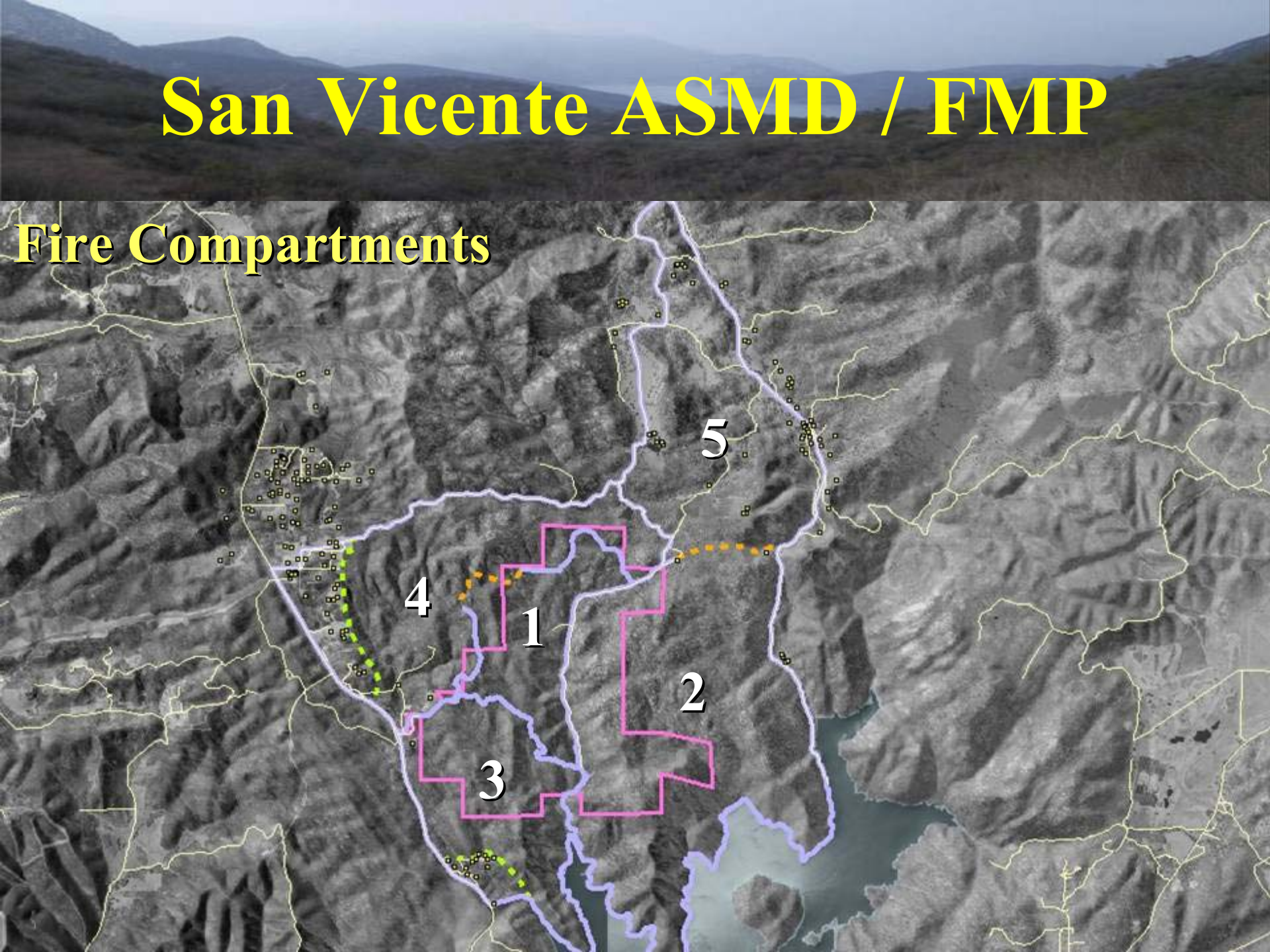

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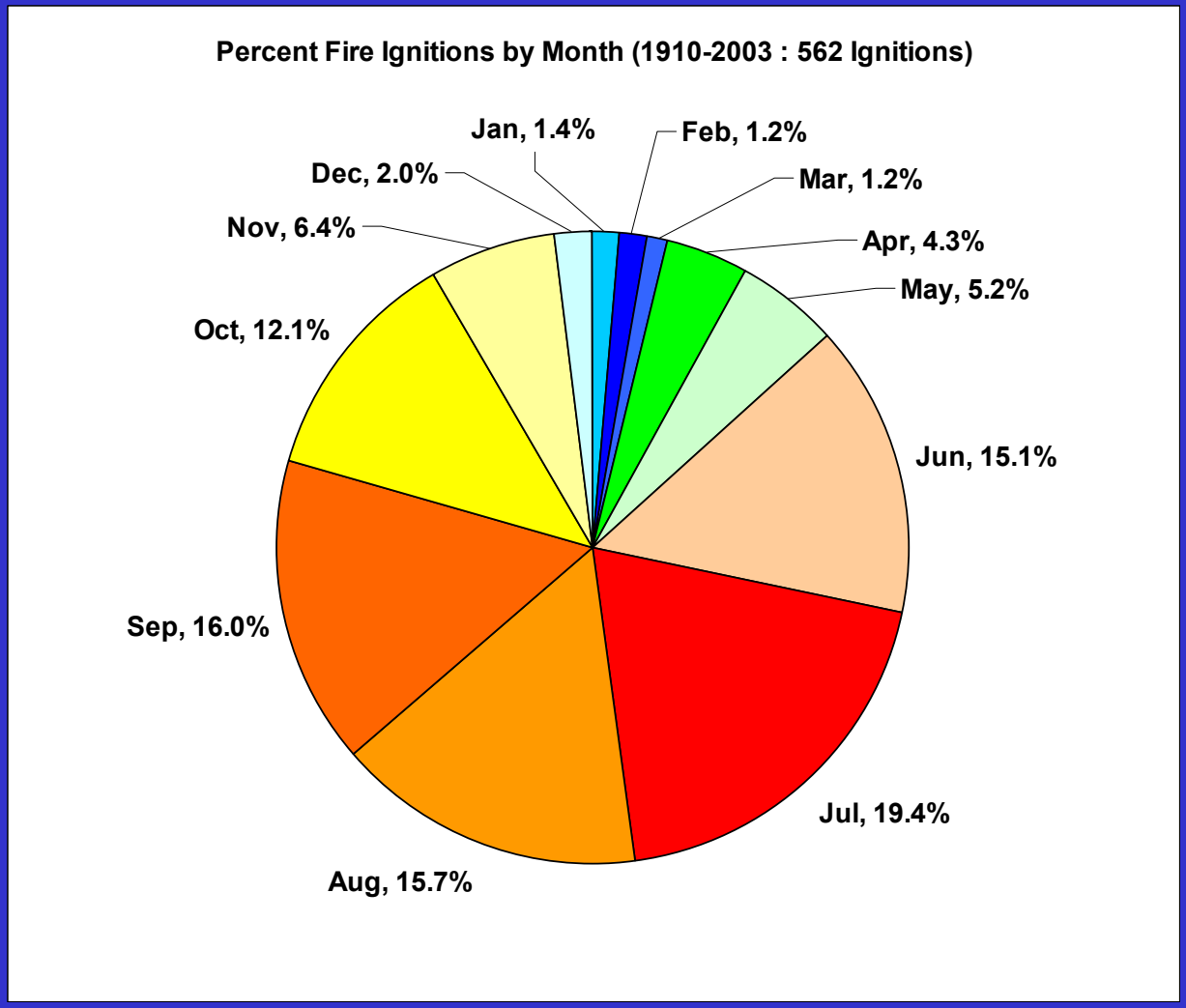
Fire Ignitions-

Historical (1910-2003) ignition data received from CDF was analyzed to determine the distribution of fire ignitions by month.

This information was used to determine appropriate weather conditions to use during fire simulations.



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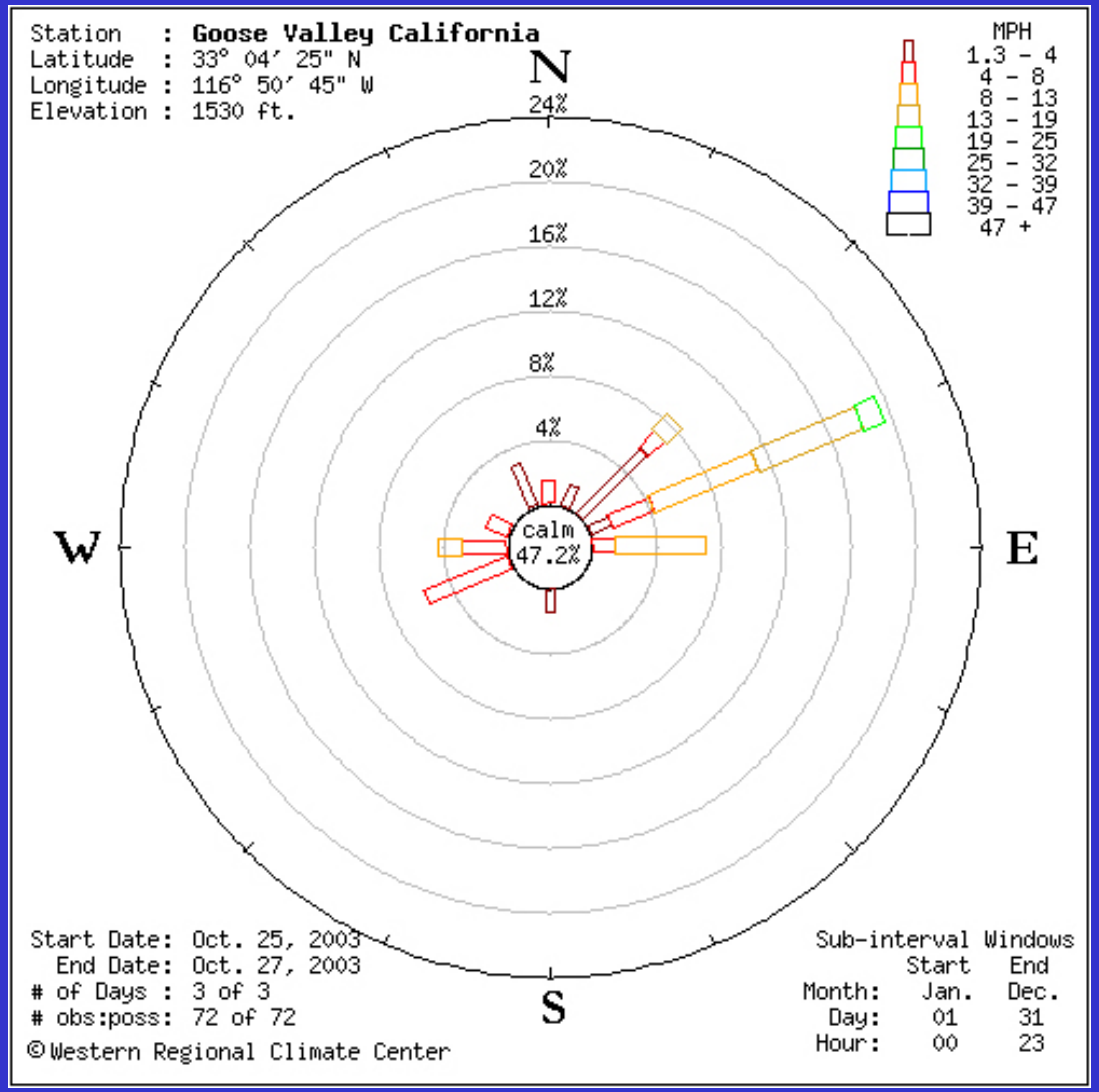
Wind Patterns

Wind Roses were collected from four different RAWS weather stations to provide some insight into the dominant wind patterns within the region to ensure the appropriate direction and speeds were used in the simulations.

Additionally, the wind patterns for October 25 – 27, 2003 were used to depict Santa Anna conditions.



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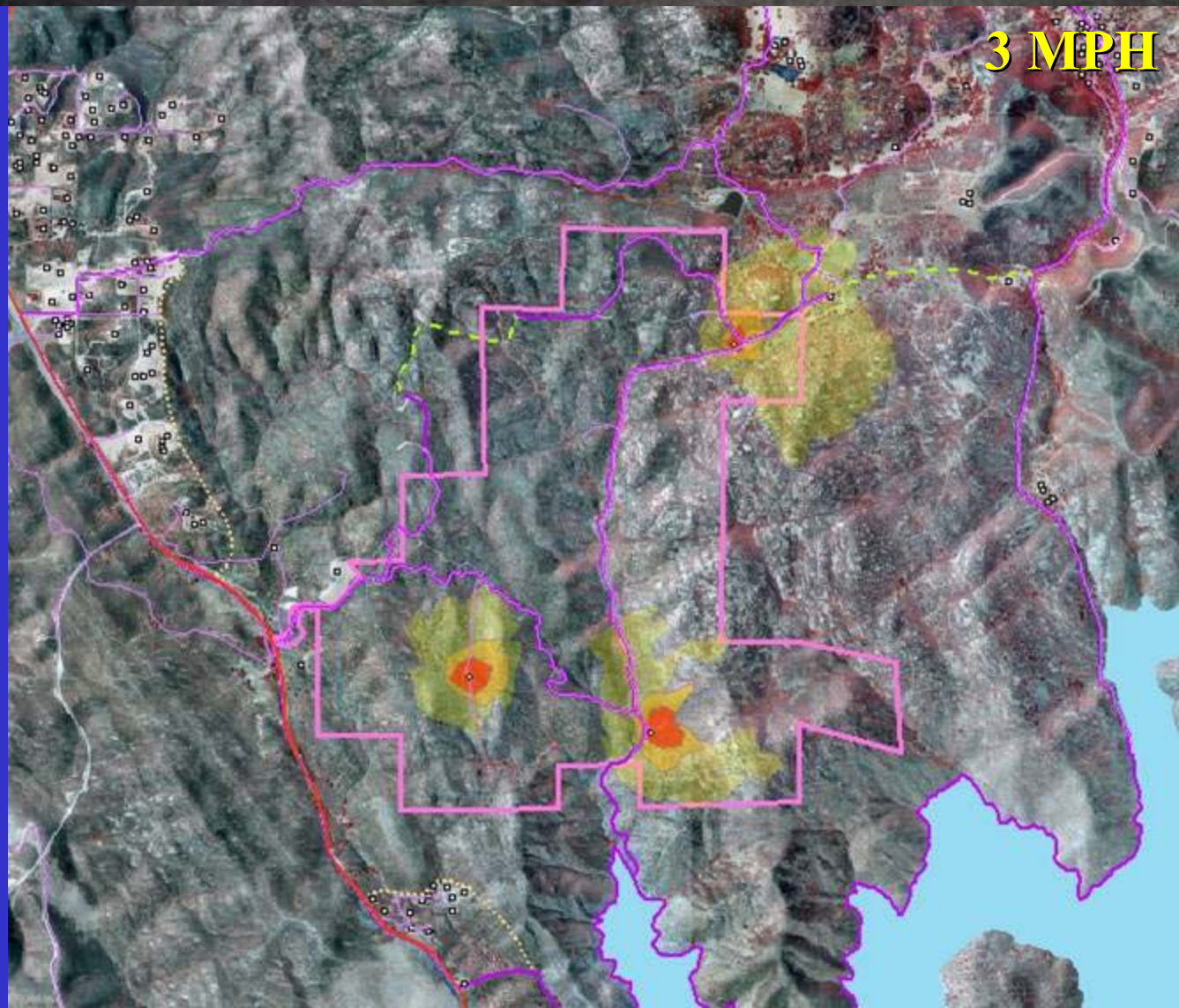
April – Low Winds

Fires are likely to spread relatively slowly providing fire suppression personnel an opportunity to get on site, assess the conditions, and implement an appropriate plan of attack.



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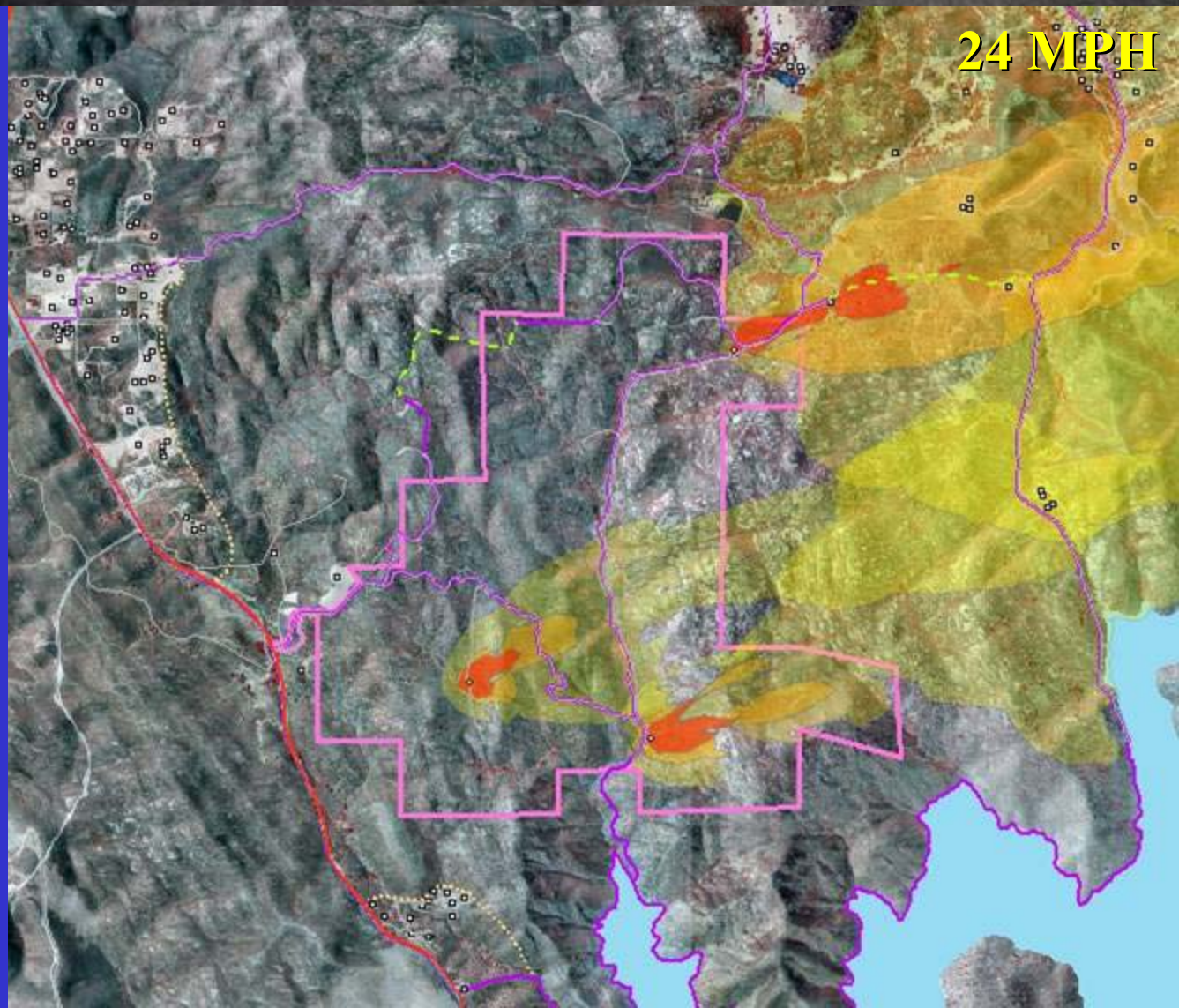
April – High Winds

Fires are likely to spread rapidly to the east providing fire suppression personnel little opportunity to get on site, assess the conditions, and implement a plan of attack that considers ecological concerns. Immediate containment should be the goal of operations.



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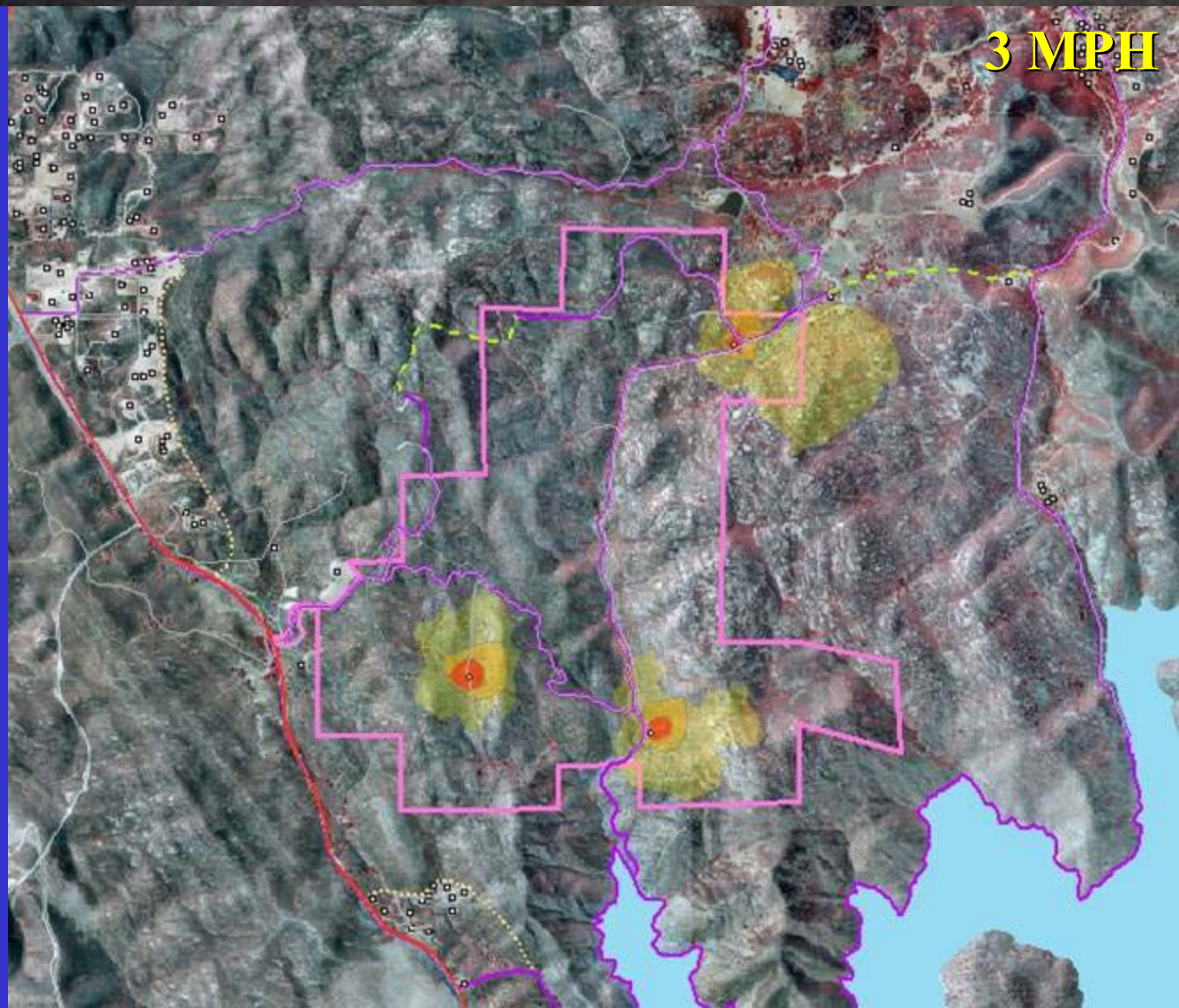
July – Low Winds

Fires are likely to spread relatively slowly providing fire suppression personnel an opportunity to get on site, assess the conditions, and implement an appropriate plan of attack.



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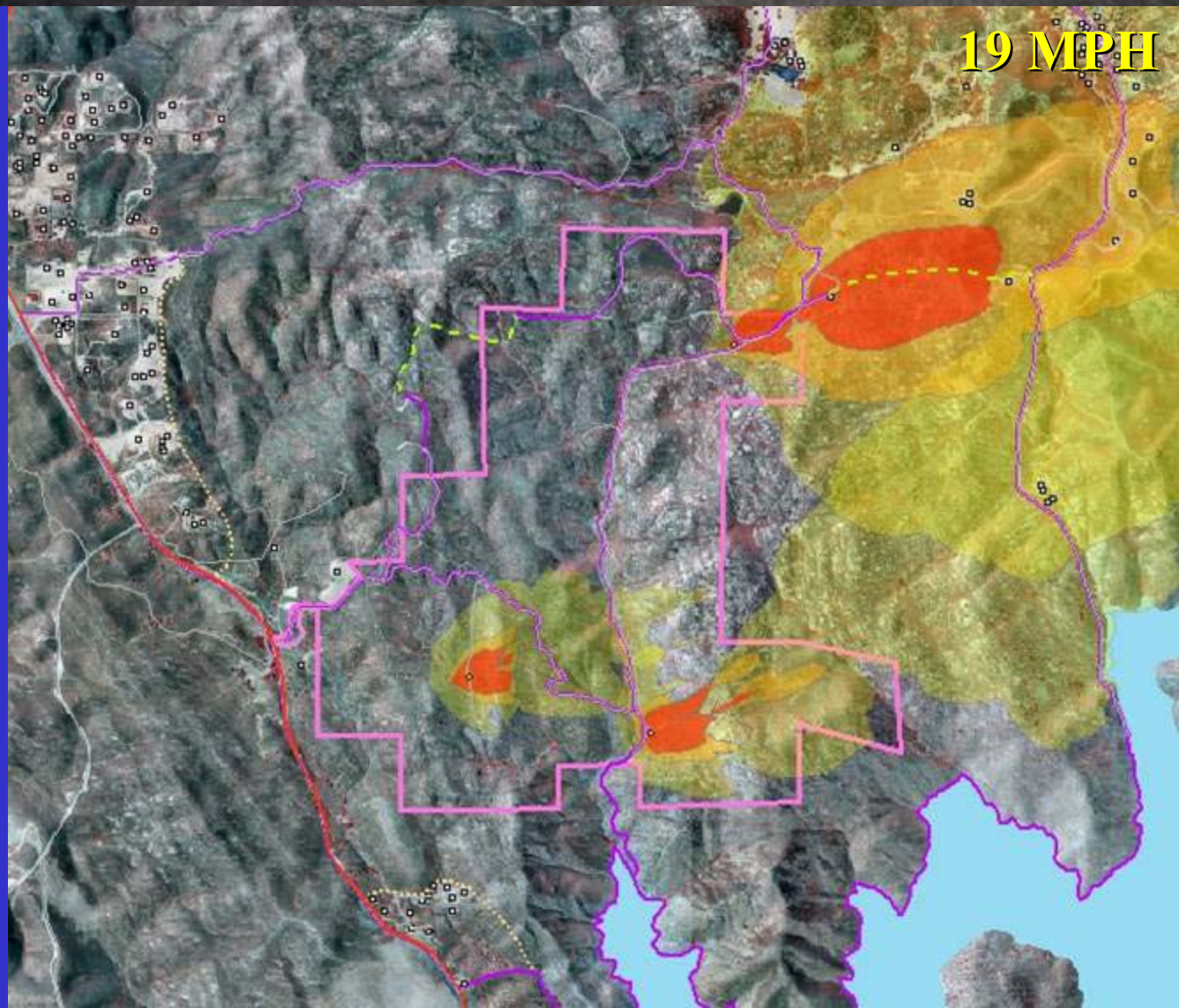
July – High Winds

Fires are likely to spread rapidly to the east providing fire suppression personnel little opportunity to get on site, assess the conditions, and implement a plan of attack that considers ecological concerns. Immediate containment should be the goal of operations.



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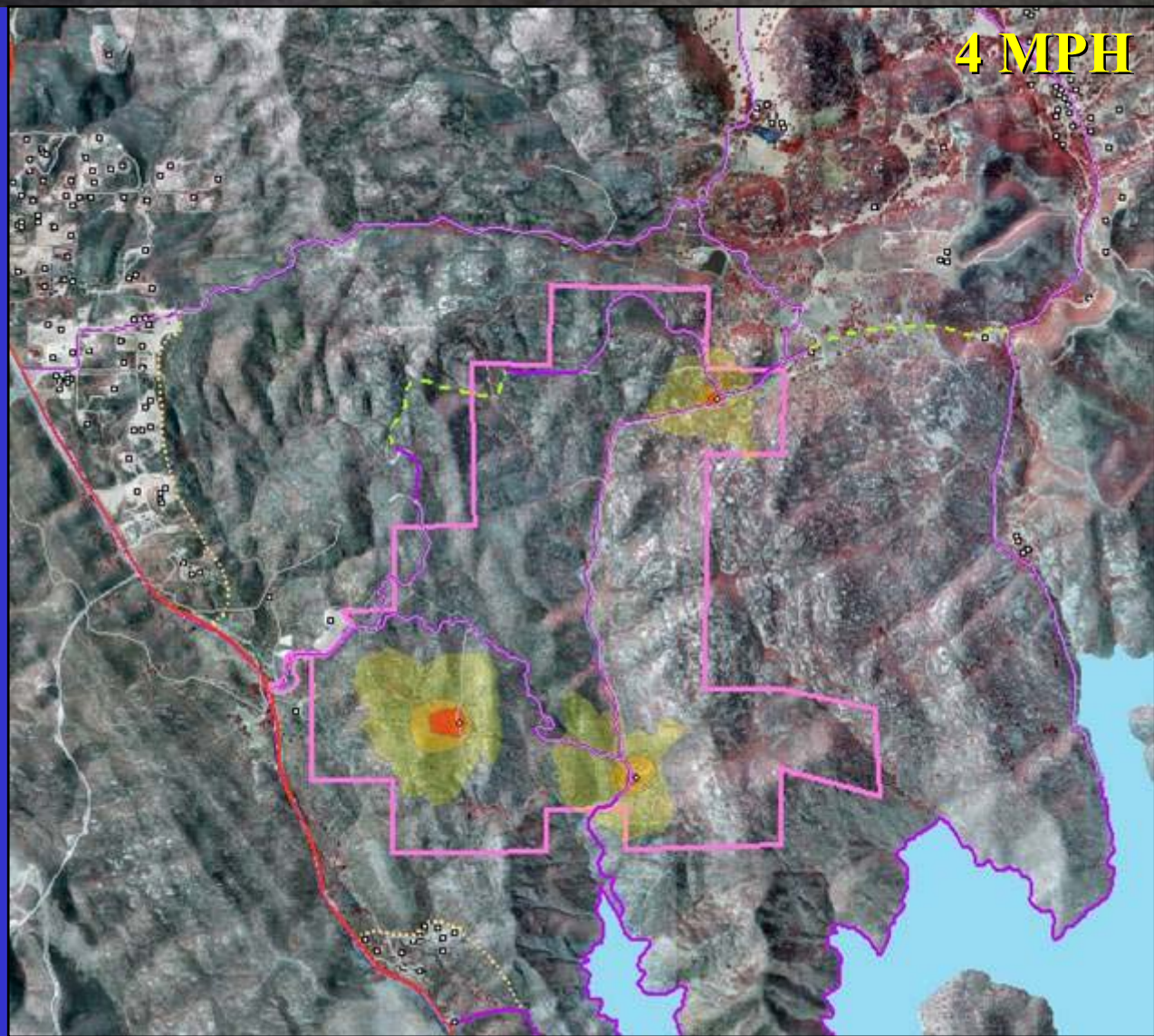
October – Low Winds

Fires are likely to spread relatively slowly providing fire suppression personnel an opportunity to get on site, assess the conditions, and implement an appropriate plan of attack.



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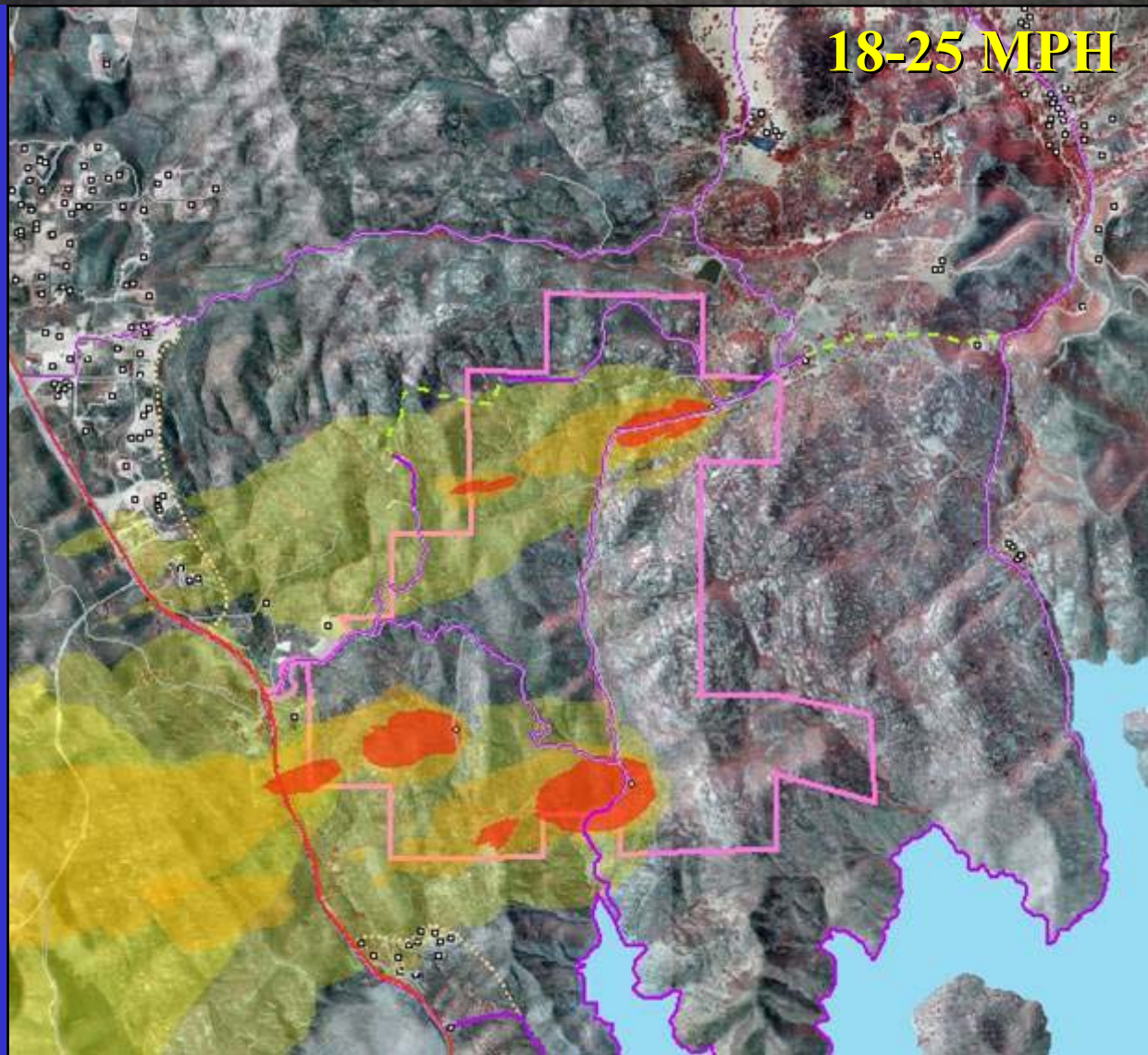
October – High Winds

Fires are likely to spread rapidly to the west providing fire suppression personnel little opportunity to get on site, assess the conditions, and implement a plan of attack that considers ecological concerns. Immediate containment should be the goal of operations.



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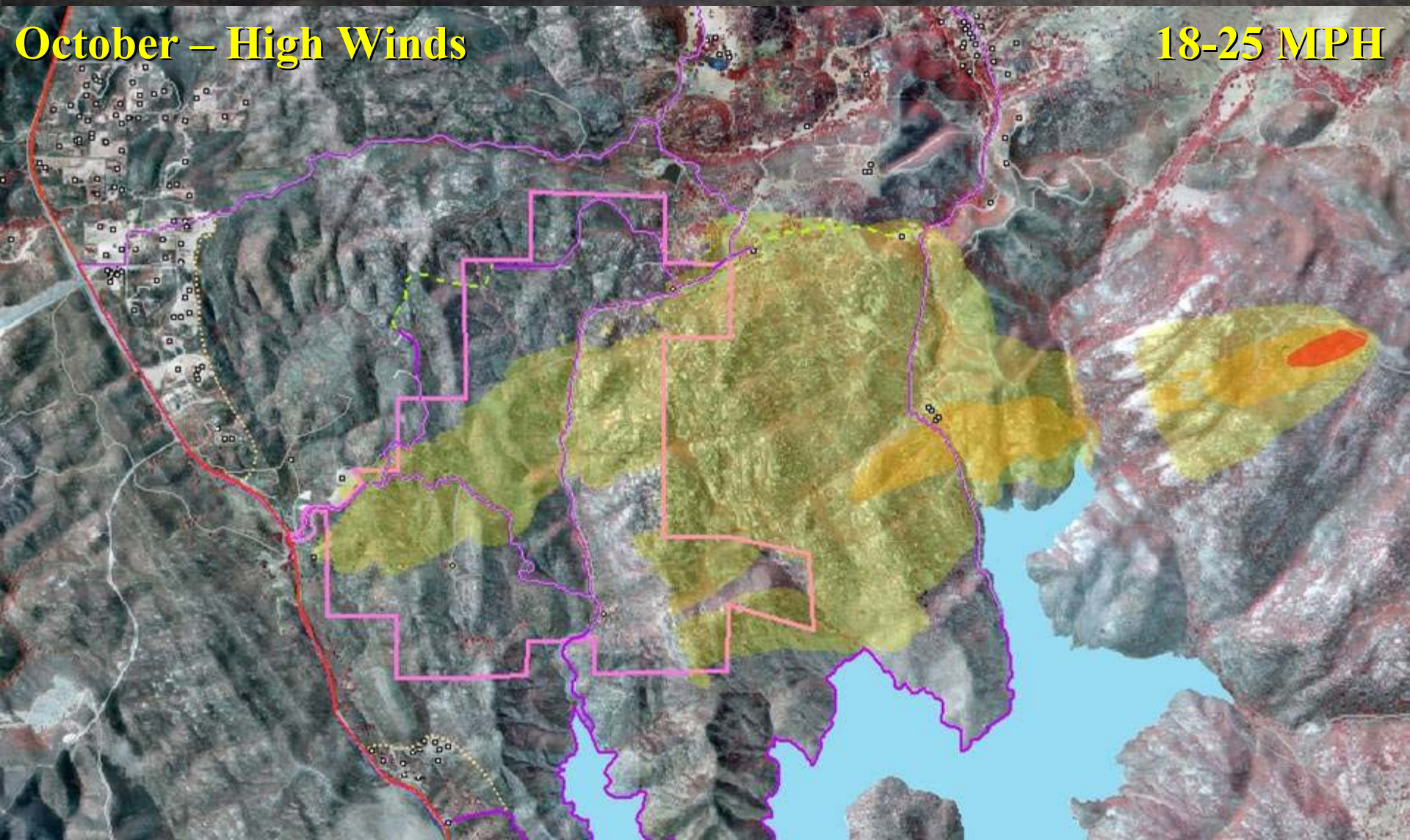

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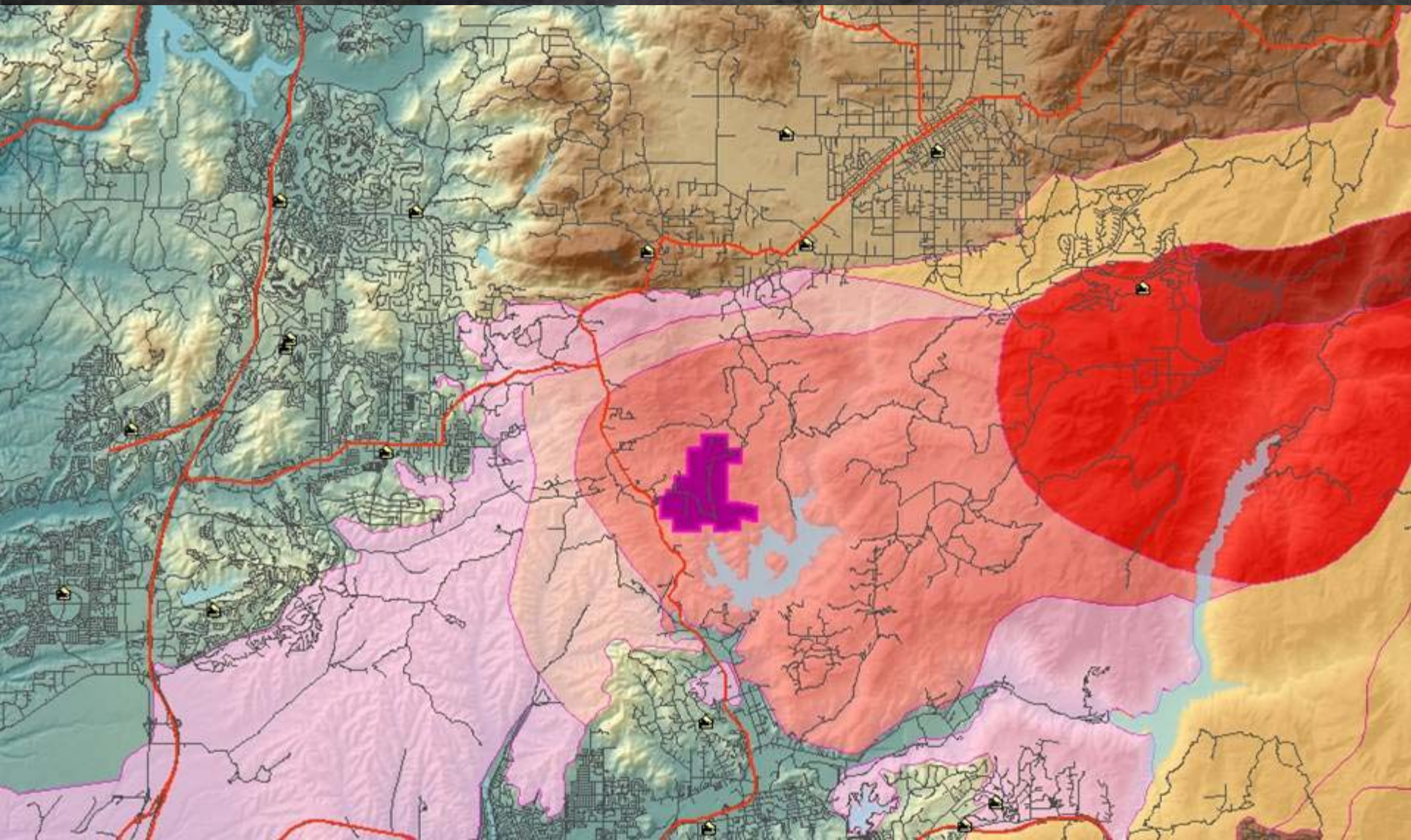

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Effects of Santa Anna Wind driven Fires (Cedar)

These types of fires are typically very fast moving and often only consume the ‘flash’ fuels, leaving behind the larger branches and trucks. This is evident with the Cedar fire as the burn severity was predominantly classified as moderate. This is reinforced by on-site photography.

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Recommendations

Thinning and Brushing

Two primary projects have been identified within this category. The first is to perform thinning and selective tree removal within the eucalyptus grove to manage the dense resprouting that is occurring.

The second is to prune some of the lower dead branches from many of the oaks within Foster Canyon to prevent them from becoming future ladder fuels.

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Recommendations

Road Improvements

Improving the service level of the primary routes within the SVOSP needs to occur in coordination with CDF and other local Fire Agencies to determine what improvements need to be made in which locations to make fire response feasible throughout the SVOSP.

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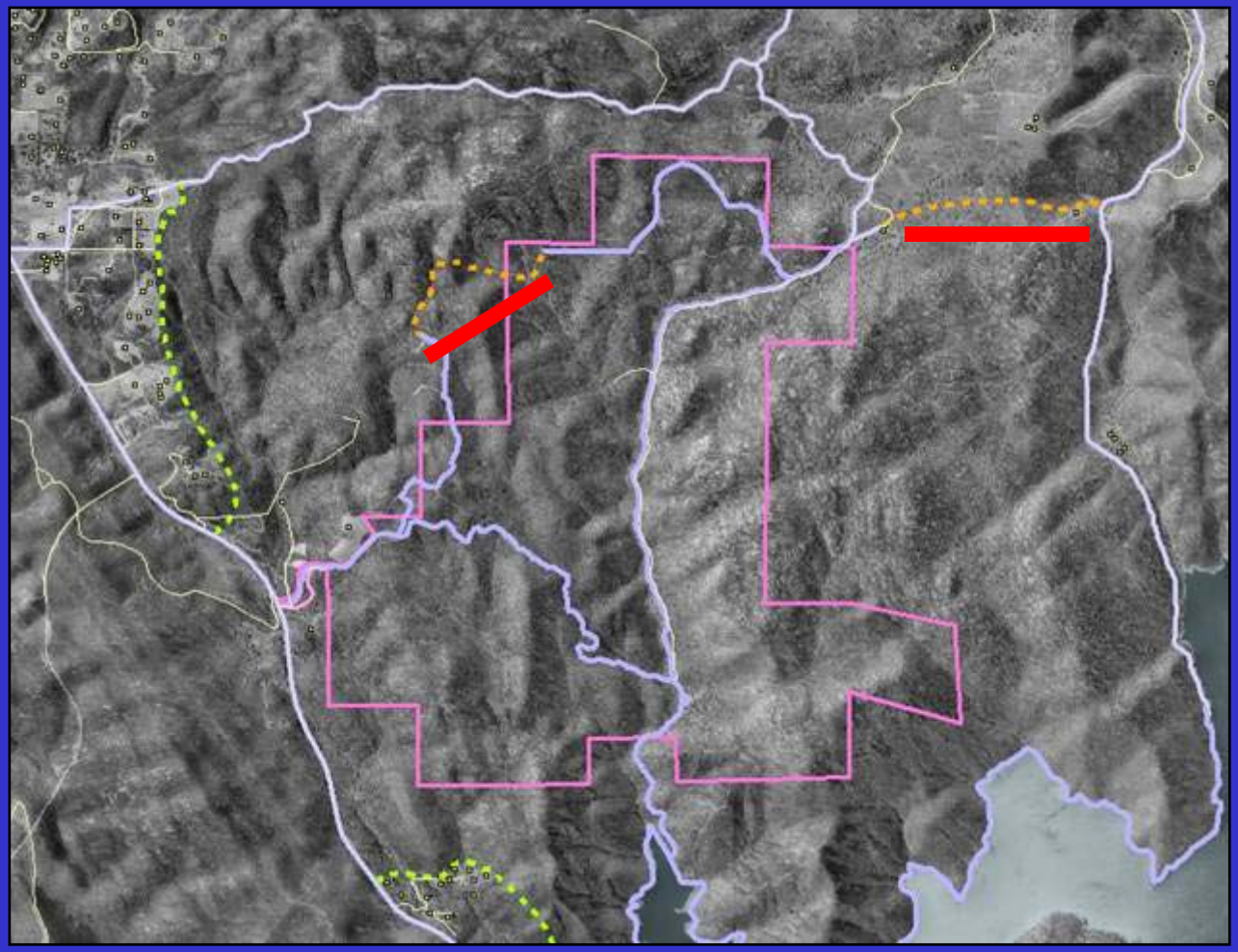
Recommendations

Defensible Fuel Profile Zones (DFPZ)

DFPZ's should be established in two key locations as ground crew connections. The design and configuration of this project should be coordinated with CDF and other local fire agencies.



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Recommendations

Defensible Space

While there are no defensible space requirements within the SVOSP itself, efforts should be taken by County and Fire Agency personnel to enforce requirements and strongly encourage the implementation of guidelines pertaining to brush management and defensible space on all existing and newly (re)constructed residential structures that occur within a defined Fire Compartment.

Evacuation Plan

These efforts should be coordinated with CDF, local Fire Agencies, and the San Diego Count Office of Emergency Services as they develop Community Protection and Evacuation Plans as approved during the November 20, 2003 meeting of the Task Force on Fire Protection and Emergency Medical Services.

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Recommendations

Prescribed Burning

Prescribed burning is not currently recommended. However, discussions with CDF and other fire agencies regarding the potential for future (10+ years) prescribed burns as the fuels loads rebuild are. Planning for them now will allow for the coordinated establishment and maintenance of fuel modifications zones that could be used as containment lines.

Research efforts regarding the effects of different fire frequencies on ecosystem health should be reviewed annually to determine if adjustments to this FMP are called for. Prescribed burns should not exceed the natural successional cycle of the vegetation communities to avoid type conversion.

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Recommendations

Education: Three forms of public education and outreach are recommended.

First, an informational kiosk with a map of the SVOSP should be constructed and posted at the primary entrance to the site on Foster Truck Trail off SR-67.

Second, all residents within a Compartment defined by the FMP should be informed of the fire risks and suppression tactics likely to be employed under various fire scenarios.

The final education component is to look at building or augmenting school programs to bring a more localized fire risk perspective to the typical presentations that are given.

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Acknowledgements

California Department of Fish and Game
County of San Diego Department of Planning and Land Use
County of San Diego Department of Parks and Recreation
Dr. Tracey Brown, California State University, San Marcos
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"Tireless" Field Crew